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HOW DO I KNOW

The image shows the front cover of a book. The cover is a deep red color. In the center, there is a rectangular panel with a gold-tooled border. Inside this panel, there is a decorative design featuring a central starburst or floral motif, with symmetrical floral and leaf patterns extending outwards. A horizontal gold-tooled band runs across the middle of this central panel, containing the text "HOW DO I KNOW" in capital letters. The entire central panel is surrounded by a wide, ornate border. This border consists of multiple concentric lines, including a dotted line and a line with small, repeating decorative motifs. The corners of the border are decorated with large, stylized floral or starburst designs. The overall style is characteristic of late 19th or early 20th-century bookbinding.



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HOW DO I KNOW?

WALKS AND TALKS WITH UNCLE MERTON.

BY THE

AUTHOR OF "WHAT MAKES ME GROW?" ETC.

(11)

With Twelve Illustrations.



SEELEY, JACKSON, AND HALLIDAY, 54, FLEET STREET,
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CONTENTS.



CHAPTER I.

	PAGE
THE HOLIDAY	I

CHAPTER II.

OUR EARS	13
--------------------	----

CHAPTER III.

A DAY AT GRANDMAMMA'S	24
---------------------------------	----

CHAPTER IV.

A TALK ABOUT HEARING	31
--------------------------------	----

CHAPTER V.

A TRUE STORY	40
------------------------	----

CHAPTER VI.

A LESSON ON LIGHT IN UNCLE'S STUDY	48
--	----

CHAPTER VII.

AUNT MAY'S LITTLE LESSON, FOLLOWED BY A TALK ABOUT EYES	61
---	----

CONTENTS.

CHAPTER VIII.		PAGE
AN AFTERNOON ON THE RIVER		76
CHAPTER IX.		
THE VISIT TO ALICE		86
CHAPTER X.		
A GOSSIP ABOUT NOSE-GATE		96
CHAPTER XI.		
THE PRISONER'S LESSON ON TOUCH		110
CHAPTER XII.		
ONE WAY OF GETTING RID OF A BLACK DOG.		120
CHAPTER XIII.		
A TERRIBLE TROUBLE		132
CHAPTER XIV.		
A TALK ABOUT GRANDMAMMA.		140
CHAPTER XV.		
THE VISIT TO A LOZENGE MANUFACTORY		153
CHAPTER XVI.		
MOUTH-GATE		163
CHAPTER XVII.		
THE TALK WITH GRANDMAMMA		172

HOW DO I KNOW?

CHAPTER I.

THE HOLIDAY.

"OH, uncle! aren't you glad that spring has come?" gasped Agnes Sunderland, as she emerged from under some bushes, and ran up to Mr. Merton's side. "I am, *very*," she added. "Only—only,—I am so out of breath with running, that I can hardly speak. Oh! I wish you had been all over that hill with me. It was so splendid up there!"

"So splendid! Why, Aggy, how quickly you change your mind! It is only just six weeks since you called that poor hill the dullest, coldest place in the world, beside giving it a variety of other unkind names. I am afraid you are as freakish as these wild locks of yours, that were so prim and steady-going not long since, and are now flying hither and thither, as if they wanted to part company from your head altogether.

Ah! when your Aunt May was a little nine-year-old, she had no such long streamers, but nice smooth hair, cut short round her head. No doubt that accounts for her not being subject to such wild fancies as this young niece of hers."

"Oh, uncle! uncle! what a tease you are!" cried the merry-hearted little maiden. "I'm quite afraid of you."

And off she set again at full speed up the road, until she overtook her two brothers, Archer and Teddy, who were some way in front. But the mischievous uncle, by rapid walking, soon overtook the young ones, and, apparently, rather before he was wanted, for Archer was busily engaged in disentangling one of his little sister's long flaxen ringlets from the feather of her hat, over which the wind had blown it, and had not quite finished his work.

Agnes was the only girl in the family, and, therefore, a great pet with all her brothers, but especially with Archer, who was four years her senior, and to whom she had always been accustomed to run for help in any difficulty, even from her babyhood.

As their uncle came up, Agnes laughingly whispered something into Archer's ear, on which he threw his arm over her shoulder, and placed himself between her and their uncle, as if he suspected some evil designs on these same curls, of which he was particularly proud.

There was a peculiar twinkle in Mr. Merton's eye



as he marked this movement : but he did not pretend to have noticed the little manoeuvre.

"Well, boys," he said, "and what have you got there? Aggy has been taking a run, you see; and she seems to have found wonders, too, on the top of yonder 'horrid old hill;' but she won't tell me what they were."

The two lads looked puzzled, but without waiting to give any explanation, the little girl roguishly said :

"I liked it to-day, because it looked so *laughy*—just as you do now, uncle."

"Everything looks like that to-day," said Archer; and Agnes added eagerly :

"When uncle and I came over that hill last time, it was so cold and dull, and all quiet and black, too. It seemed just as if everything were sulky. But, to-day, I took a run by myself; and, do you know, the trees and the bushes are quite green; and there are violets and daisies, and buttercups, quite thick on the ground; and the wind was blowing them about; and everything looked kind and good-tempered, instead of sulky as it did before. And then there was such a nice buzzing and whispering noise! Everything seemed to be talking. And it made me feel so glad, that I couldn't help getting through all the bushes, and tearing my frock, and roughing all this long tiresome hair that uncle hates so much."

Uncle Merton laughed. He did not exactly look as

if he did hate it in his heart, though he gave one stray lock a sly twitch, that made Archer keep a sharp look-out.

"There's one thing, though," Archer said, "that hasn't been *laughy* at all to me; and that's the dreadful noise that this fellow here has been keeping up ever since we came out. I declare, uncle, I wish you would take some means for stopping that. It's enough to drive a fellow mad."

Mr. Merton opened his eyes inquiringly, and Teddy, with a broad grin on his face, explained that he had only been humming a few tunes to himself.

"Airs that Archer doesn't like, I suppose. Well, if you must sing, can't you find some tunes that are more to your companion's taste, my boy?"

"That would be impossible," returned Archer, "because I don't know one from another."

"Hem!" said Mr. Merton; and then, with a full, rich voice, he made the woods resound with the old air, "Begone, dull care," only without the words, saying, when he had finished, "Come, you know that, don't you?"

"Not a bit," replied Archer—"unless it is the 'Old Hundredth.'"

"Poor fellow!" said the uncle, in a tone of mock compassion, "what shall we do for you?"

"Nothing, thank you, uncle," said Archer, laughing; "I am very well as I am."

The sudden appearance of three acquaintances interrupted the conversation. These were a pleasant-looking lady and gentleman, of middle age, and another gentleman, somewhat older, who, though strikingly like the lady in features, had a countenance that betokened so much depression and gloom, that it was otherwise a perfect contrast to her sunny face. After the exchange of a few civil remarks, the two parties went each their own way; and no sooner were the others out of hearing, than little Agnes exclaimed :

"Mr. Sinclair does not look laughy, at any rate ; he looks just as my hill did when it was winter time!"

"Your hill, Agnes !" repeated Teddy. "How long is it since Mr. Forrester made you a present of it?"

But Mr. Merton, without appearing to hear this last remark, said rather gravely, "Poor Mr. Sinclair! Perhaps if all nature were as silent to you, Agnes, as it is to him, you would look rather dull and gloomy too."

The little girl's mirth was checked in a moment, and, half abashed, she said with a soft sigh :

"I quite forgot, uncle, that he was deaf."

"But, still, though he is," said Archer, "I should have thought that he might have shortened his face a bit on such a splendid day as this."

Mr. Merton shook his head :

"You set a very small value on your ears, my lad,

I see. I hope you may never be in that poor gentleman's case."

"I'd rather lose the use of my ears than of my eyes, any day," returned Archer, positively.

"I don't know which I would rather be, blind or deaf," said Agnes. "It must be very dreadful to be either."

"It would be worse to be deaf than blind, though; don't you think so, uncle?" said Teddy.

"Yes; I do certainly," returned Mr. Merton, "even though I can't boast of having so much music in my composition as you can, my good fellow; but I am glad that I am never likely to have my choice in such a matter."

They walked on silently for a few minutes after this, until at a particular turn in the road a wide and lovely view suddenly opened before them. Range after range of hills was to be seen in the distance; then came an expanse of flat country, mapped out into fields of various colours, some brown, others green of different shades, interspersed with two or three of a light yellow tint, according to their respective products; and each divided from its neighbour by a hedgerow, or now and then by a fence, or a clump of trees. Here and there a village lay nestled under a rising ground, or backed by a wood, with its church-tower or steeple of grey or white rising from amidst the clusters of houses. Nearer

still, and just at the bottom of the sudden green slope which descended precipitately from the side of the high road, lay two or three old-fashioned, but substantial farm-houses, with their usual appendages; while the upper and right side of the slope was crowned by a fir forest in all its strongest contrasts of colour—the old Scotch firs being still in their winter dress, and great part of them without any dress at all; and the young larches in their tender green spring clothing.

“There is no finer view than this in all the world; is there, uncle?” exclaimed Archer, as they came up to the spot, and with one consent stood still to gaze on the scene which, though familiar to all, had not been visited by any of them since the setting in of winter. “What a ride we shall have to the old castle to-day! It’s a glorious thing that we have got such a fine holiday! I’m glad I’m not blind to-day, at any rate!”

“Or deaf either,” cried Teddy, eagerly, “for there’s the cuckoo; and I was the first to hear it. Hurrah!”

“The cuckoo!” repeated his uncle. “I think not; it’s too early, surely.”

“Yes; it is though; hark!” said Teddy. “There it goes again! Cuckoo, cuckoo! ‘In April come he will,’ you know; and I thought he would come to-day, because it is so fine and warm. The nice old fellow!”

“And so you’ve won the prize,” said Archer, looking disgusted. “It’s too bad, though! and after all,

it's all owing to these ears of yours," he added, good-humouredly pulling his brother by the right ear. "And how can I help it if mine are not so sharp!"

"You might, at any rate, try to make them sharper," remarked his uncle, smiling. "But pray what is this wonderful prize which they have lost you?"

Both boys assisted in answering this question, and also in giving a lively description of the many merits and surpassing beauty of a certain little brown and white puppy, of a month old, son to old Rose, the house-dog, which ever since his birth had been so much coveted by both brothers, that to settle the matter their father had said that it should be decided in this way.

Archer's holiday was for awhile certainly rather spoilt by the disappointment; but in a most praiseworthy manner he tried hard to avoid venting his vexation on his brother; and perhaps it was for this reason that he immediately cut a long stick out of the hedge, and ran on for some distance, waging war against some tall thistles that grew by the roadside. At any rate, by the time that the others overtook him at the door of the little inn, at which they were to hire a carriage to convey them to a neighbouring ruined castle, he was looking quite as sunny as could be expected under the circumstances.

Plantagenet Castle, as the boys always chose to call it, stood on an eminence somewhat lower than many of

the other hills in the neighbourhood, and was surrounded by apple trees ; so that at the season when the young Sunderlands paid it their usual spring visit, the country looked as if it were bathed in apple blossom.

"Oh ! what a glorious drive we shall have !" cried Teddy, as he jumped on the box. He was soon, however, too deep in a consultation with the coachman, about the name his new dog should receive, to notice the beauties of nature. Agnes, too, was very busy tying up little bunches of wild flowers, gathered in her walk, which were intended as presents for the old acquaintances whose cottages they would have to pass ; and Archer, usually the life of the whole family, was by no means in such high spirits as he had been before the cuckoo came to spoil his holiday.

"How do you know that I could get my ears sharper if I tried ever so much, uncle ?" he said at last, after they had been riding for some minutes, almost in silence.

"How do I know !" repeated his uncle laughing. "Oh ! I'll answer that question another day. We can't go into such deep matters as that would lead to on a holiday ; but it will be worth your thinking over another time."

"He should learn singing, uncle ; shouldn't he ?" said Teddy, leaning over from his seat on the box, and speaking in a mischievous tone.

"Yes," said Agnes ; "mamma says that everybody should try to sing in church at any rate."

"But what if they can't?" cried Archer, rather impatiently, and then he took to gazing into the woods, and relapsed into silence again.

The first turnpike gate was passed, the old rheumatic grandmother duly inquired after, and the prettiest of the posies bestowed on the fat little toddle who had followed mother to the gate. Next came that finely-wooded corner where the ancient oak was struck by lightning last summer. Should they find it still standing in its grand decay? or had it already been cut down for what it would fetch? Ah! there it was; and a burst of mutual congratulation followed the first glimpse of the gnarled trunk and quaint arms of the dear old tree. Every one stood up, and the carriage was stopped that all might have a good look at it. Then on they drove again, and soon descended a steep piece of road which led through the little hamlet where Alice, the blind girl, lived. Various small treasures, the subjects of discussion for weeks before they were provided, had to be made over to her, so here every one must of course get down; and truly the pleasure which this short visit gave her was worth a little delay.

But Archer was more silent than ever after they got into the carriage again; so when they came to a curious assemblage of rocks, among which there was

a remarkable echo, a mile or two further on, Mr. Merton called for another halt. It was a lovely spot, with no houses near it, and here he proposed that they should all try the power of their lungs; the only stipulation being that they should keep out of each other's sight, and that two should not shout or sing at once. He began himself by making a short speech, and when he ceased there came a song from Teddy, then an imitation of various birds and animals, which every one recognized as Archer's performance; and it went on so long that Agnes intimated her impatience by beginning, in a soft treble, a lullaby to her doll. Then they all took to calling and shouting, until the signal was given to get in again.

The experiment was entirely successful; for the young folks' spirits, once raised, continued as unbounded as their uncle, who was not very old himself, considered to be suited to the occasion. Indeed, the two boys at last became so noisy that little Agnes, pulling Archer down by the sleeve as he was playing off some practical joke upon Teddy, whispered :

"Please, do be quiet; or else I'm afraid uncle will be quite disgusted with us."

"Don't be nervous, my little maid," said the good-natured uncle. "Boys should laugh and talk when Nature does, especially if they are out for a holiday. I was much more disgusted some time ago to see Archer

sitting in a brown study, and as grave as a judge, because it was unnatural even for a person of his mature years."

"But suppose boys happen to be thinking, and trying to *think out* something, too, as our master says; and suppose it was an uncle who set them a-going—what then, Uncle Merton?" said Archer.

"Why, then, possibly, the said uncle might be expected to help them out with their thoughts. But come, whose eyes are the sharpest now?"

A sudden exclamation of "Why, here we are!" and "Here are papa and mamma!" broke from all the children as Mr. and Mrs. Sunderland, who had been out visiting, were descried at a spot where they had agreed to meet the party, and within a hundred yards of the Castle itself.

CHAPTER II.

OUR EARS.

"ARCHER has been in a brown study ever since the holiday," said little Agnes, in such a grave tone, that she made Teddy laugh, as he followed her into Mr. Merton's snug study, a week after the visit to the Castle.

I must explain, that Agnes was always called "little," though she was nine years old, because she was so very small of her age, and also a sort of pet in the family. And, really, as she threw herself on to a stool at her uncle's feet, that day, and lifted her rosy round face to look into his, she might have been taken for no more than six or seven.

"What will you say to him now, uncle?" she added, in the same serious manner.

"Well, I don't know that I particularly object to brown studies, except on holidays," returned her uncle smiling. "But what does Archer say for himself?"

"Only that everything and everybody conspired to

throw me into one last Tuesday," returned Archer, with a droll grimace. He was famous for making that kind of article, and rather cultivated the art.

"Then you were not *fretting* all the time—fretting about the brown and white baby?" Mr. Merton said.

"Fretting! I should think not, indeed! Of course, I should have liked to choke the wretched bird that cheated me out of him, but——"

"The wretched bird, indeed!" interrupted Teddy, chuckling, and giving his brother a gentle poke in the ribs with a pencil. "My dear fellow, you had much better say, 'your wretched ears.'"

Now Archer and Teddy quite understood each other; and, to their credit be it spoken, they never quarrelled, though they kept up a pretty constant fire of this sort of banter. Returning the poke, with compound interest, Archer quietly finished his speech:

"'What can't be cured, must be endured;'^{*} however, the little brownny helped, I dare say, to settle the colour of my study. But, now, about ears, uncle; how do you know that they may be improved?"

"By means of my own ears," answered Mr. Merton; "and I know it of yours, by what I heard on Tuesday."

"Oh! then *you* were in a study, too," said Archer, triumphantly.

"Ah! but it wasn't brown, Archie," said Agnes;

"it was a sky-blue one, and didn't make uncle look so grave as you did."

The boys laughed; and Mr. Merton said:

"That's right, Aggy; you always stand up for your uncle."

"But, uncle," persisted Archer, "what did you hear that made you know so much about my ears?"

"What a pertinacious fellow you are!" replied his uncle. "Well, if you must know, I heard you crow like a cock, bark like a dog, and cry 'milk oh!' like the old milkman himself. Now, you couldn't have done all that, unless you could hear a difference between one sound and another."

"Oh! of course I'm not deaf," said Archer.

"Could you have gone through all that performance, say, four or five years ago?" pursued Mr. Merton.

"No; I only learnt to do it lately. It was such fun to make the housemaid go out for the milk, and find nobody there."

"I dare say it was," returned Mr. Merton, who remembered playing off similar tricks himself, a few years back. "But how did you learn to do it?"

"Oh! listened to the old fellow, and then tried till I could do it like him."

"Very well. Let me go a little further back, now. Do you suppose that when you were a small baby you knew one person's voice from another?"

"Not when I was first born, I suppose," said Archer. "Our baby knows mamma's voice now, but he doesn't know any one else's."

"You *learnt* by *listening*, then, I conclude," said his uncle; "so your ears have done you some good service. Your 'ear-gate' has let in a little knowledge, and——"

"Oh!" cried Teddy, interrupting him, "I beg your pardon, uncle, but I know where you got that word. It's out of the 'Holy War.' Don't you know, Archer, how it says the town of Mansoul had five gates, 'Ear-gate,' 'Eye-gate,' 'Mouth-gate,' 'Nose-gate,' and 'Feel-gate.'"

"And how did you learn that piece of wisdom, Master Ted?" asked his uncle, turning quickly round on him.

"I read it," said Teddy, very promptly.

"Read it! And how did you do that?" persisted Mr. Merton.

"I read it out of the book," answered Teddy, wondering at the question.

"Yes; but how? What with?"

"With my eyes. Oh! I see!" cried the boy. "It came in by my 'Eye-gate.'"

"Just so," said the uncle. "Now I wonder if either of you can tell me what we generally call these gates?"

"I can, I can," exclaimed Agnes. "They are our five senses ; mamma told me that."

"And what is the good of them?" he continued. "What do we get by them?"

"Hearing,—and sight——" Teddy began, but Mr. Merton stopped him.

"No, no ; tell me in one word. They all let in one thing, though it is of different kinds. What is that one thing?"

Teddy and Agnes looked at each other now in the most puzzled way ; but Archer, after pressing both his hands on his forehead for a minute, very much as if it were a lemon, and they a pair of lemon squeezers, looked up suddenly, and said triumphantly :

"Knowledge!"

"Ah! of course!" cried Agnes ; "but how clever of you, Archer, to find it out!"

"I must go on with my catechism," remarked Mr. Merton. "Is knowledge a good thing?"

"Yes," returned the little girl quickly. "The Bible says it is not good to be without it ; so it must be a good thing."

"So if we are wise, we shall try to get as much of it as we can, then, I suppose. And one great way must be, to take care of the gates, and keep them always open, too ; mustn't it?" Mr. Merton went on.

"I suppose so," said Teddy, looking rather amused.

"And you think, uncle—don't you?—that some people keep their ear-gates only a-jar?"

"Don't be personal!" said Archer, trying to look terribly threatening.

"Oh! I was only wanting to help you out of your difficulty," returned the saucy boy, quite undaunted.

"Do you mean to say, uncle, that one person's ears are as good as another's, if he only keeps them open?" asked Archer, turning away from his brother impatiently.

"Certainly not," replied Mr. Merton. "For instance, there can be no comparison between your ears and conceited Master Teddy's, there. Nevertheless, as you have shown us that you can do something with them, you might surely do still more; and pains go a great way sometimes. You remember that a tortoise once won a race with a hare!"

"We'll have a race round the orchard by and by, uncle, and then you'll see which is the tortoise," said Archer, good-humouredly. "But I was just thinking what a bore it must have been to have had one's ears chopped off, as some of those fellows had who couldn't get on with Archbishop Laud."

"That is rather a strange way to speak of sufferings for conscience' sake," remarked his uncle, gravely, while the corners of his mouth betrayed the difficulty which he experienced in repressing a smile. "But what made you think of that?"

"Well, I suppose it made them deaf—didn't it?" replied the boy.

"I never heard that it did, though I think it very likely that their hearing was not so good afterwards. You don't suppose that what we call our ears form the whole hearing apparatus; do you?"

"No, I suppose not; but aren't they the principal part of it?" inquired Archer.

"Certainly not; they are useful for collecting the sound; but the hearing itself takes place inside the head."

"I wish you'd tell us what the rest of the apparatus is like, then, uncle," he said earnestly, and little Agnes added:

"Oh, yes; do please tell all about it. That's the way I like learning things."

"I expect, though, that a good deal of what you learn that way doesn't stay very long in this little curly knowledge-box of yours, young one," he said, kindly. "It often goes in at one ear and out at the other—doesn't it?"

"Oh! uncle, is there a way right through my head like that?" she asked, eagerly.

"You literal little puss!" he said, laughing.

"Well, uncle," cried Archer, rather warmly, "and how is she to know what's true and what isn't, unless she asks? I'm sure I don't know what the inside of

my head is like—it might be all hollow for anything that I know.”

“I know better, if you don’t, then,” said Teddy; “for I’m ‘sartin sure,’ as the Irish people say, that that knowledge-box of yours has got a fine lot of brains in it.”

“Never mind about the brains; I want to know about the ears,” returned his brother. “I wish I could see what they are like inside.”

“I don’t think you would see much, even if you could peep into your own ears,” remarked the uncle; “for of one thing you may be quite sure, and that is, it is perfectly dark in there.”

“Suppose you try,” cried Teddy. “Come, old fellow, twist one eye round to this side, and the other to the other one, and take a good look in. I’ll strike a light and hold it to the door for you, if you like.”

“Uncle,” said Archer, “will you have the goodness to turn this boy out of the room? We shall never get on while he turns everything into a joke.”

Teddy instantly drew himself up on his chair in the most absurd attitude of attention; but his elder brother would not be made to laugh; and Agnes, following his example, made desperate efforts to overcome a little giggle. So Mr. Merton, seeing that at least two of his young listeners were quite in earnest about the matter, said:

•

"Well, I suppose I must try and describe these curious machines; and first let me tell you that each one is made up of three parts—outer, middle, and inner. The outer part is, of course, just what you see, and, besides, a little passage leading to the middle part; and I dare say you will be surprised to hear that the inner end of this passage is closed up by a sort of skin, called a *membrane*."

"Then the passage leads into nothing?" said Archer.

"*Into* nothing, but not up to nothing," replied Mr. Merton; "for it leads up to the *drum* of the ear, which you may call the *tympanum*, if you like a long word better than a short one."

"I shall call it the drum," said Agnes; "for I can't remember the other thing."

"*Word*, I hope you mean," said her uncle, smiling, "because if you don't remember about the *thing*, all my trouble will go for nothing. But now for a description of this drum. It is a hollow place like any other drum, but of a very irregular shape; and it differs also from other drums in having a little opening into it through which the air gets in. This little opening is from the back of the mouth. There is a chain of small bones inside the drum, and also some small muscles and nerves."

"Oh! stop, uncle," cried Agnes. "Please stop and tell me what those things are."

"It is the muscles in your body which make you able to move any part of it," answered Mr. Merton. "They are a sort of strings, or cords, which stretch out and draw in; and that is what they do when you stretch out your arm and draw it back again. And the nerves are something like threads, in which the feeling lives."

"Thank you, uncle," said the little girl; "now please go on."

"Well, you must remember that this hollow place, or drum, is in a large bone, and there are one or two little openings in the further wall of it which are covered over with membranes too; so it is quite separated from the inner part of all, which is called 'the labyrinth.'"

"What! is it a place full of twistings and turnings like the one at Hampton Court?" said Teddy.

"Something like it, perhaps," answered his uncle, "only it has a good deal of liquid in it, and also the nerve of hearing comes there—for it is in this labyrinth that we really hear."

"Well, I never thought that ears were such curious constructions," said Archer, who had made good use of his while his uncle was giving this description of them.

"Nor I, either," said Teddy and Agnes in a breath.

"Of whose works is it said that they are great and marvellous, my little maid?" asked their uncle, very seriously.

"Of God's," she answered, softly; "but I think that ears are *little* and marvellous, for they are not great things at all."

"Little things made with great wisdom," replied Mr. Merton, smiling; "and do you think you understand all about them now?"

"No, uncle, not half yet," said Archer, observing Mr. Merton get up; "you have not told us a bit how they act, so I hope you have not got to go away."

"Luncheon will be ready in five minutes, and I have something to settle before we go into the dining-room; so I am afraid that we must postpone that part of the subject until another time."

"I hope it will be soon, then," said Teddy, shrugging his shoulders; "for you know my memory always had a hole in it; and I'm afraid I shall forget all about the ears if you don't make haste and tell us how we hear with them."

"You must see if you cannot contrive to recollect what you have heard until the evening, at any rate," answered his uncle, "for I shall be busy all the afternoon; but it is just possible that I may walk home with you all after tea."

At which announcement there was a general clapping of hands.

CHAPTER III.

A DAY AT GRANDMAMMA'S.

"WHAT a good thing it is that we've got a 'bookish uncle,' and that he is not obliged to go to business every day, like papa! Don't you think so, Ted?" said his brother, as the three ran down the garden after lunch, in search of their various pets. For this was Wednesday, and a half-holiday; and it was to be spent at Oaklands—the most delightful of all delightful places in the eyes of the young Sunderlands.

"Yes, I do," answered Teddy, "only it was a bore that all those learned friends of his chose to come in to-day; and Mr. Sinclair, too, among them. I nearly go to sleep while they are talking on their fingers to him; and, besides, I couldn't understand a word they said."

"Aunt May told me," said Agnes, "that uncle is trying all sorts of ways of putting his deafness out of his head. They are making some discovery together—something about colours; and then uncle has persuaded

him to build a school for the poor children; so, of course, they must have lots to talk about."

"It must be an awful bore not to be able to hear anything," said Teddy, with something like a sigh. And then off he ran to the bee-hives, followed by the others. From the bees they proceeded to the poultry-yard, and then to the pig-sty; after which there were various trees and plants to be inspected—rose-trees which they had budded themselves last autumn, creepers which they had trained, seeds just coming up, and bulbous plants in full bloom.

So the time was passing only too quickly, when some one suggested that Jack was expecting a visit; and, true enough, there he was, poking his nose through the hedge, and looking for all the world as if he wondered why they did not avail themselves of his wonted kindness, and take a few rides up and down the field. Archer required no further pressing; he was round in the old donkey's domain, and on his back, in less time than it takes to write it, while Teddy hastened to cut down thistles with which to entice him into a somewhat quicker trot: for, like most of his species, he had always preferred walking to running, even in his youthful days; and in spite of his extreme good-nature, it was never easy to get him to go faster than he chose.

But Agnes could not *ride rough* like her brothers; and as she soon got tired of following them and Jack

up and down the field, she hailed with delight her old friend, Carlo, who, taking pity on her loneliness, made his way through a hole in the hedge, and bounded up to the bank on which she had seated herself, showing, by his caresses and gambols, that he expected a right-down good romp.

At last the boys got tired of riding, and at Archer's suggestion they all set off for the orchard, to practise racing, and get themselves primed up for the exhibition which they had promised their uncle. There was a nice path all round the orchard, wide enough for three to run abreast; so this was a favourite place for that sort of exercise.

They had not gone far, however, before little Agnes, with a cry of delight, announced the appearance of grandmamma in the distance. Yes; there she was in her Bath-chair, true enough; and instantly there was a rush to meet her: for a walk and a talk with 'dear granny,' as she loved to be called, was as great a treat as one with Uncle Merton.

She was, in Archer's language, "such a jolly old lady!" by which, I beg to observe, he meant no manner of disrespect, but, on the contrary, the very highest affection and esteem: while, as for Teddy, if he ever confided secrets to anybody, it certainly was to his grandmamma.

"My little Aggy," as the old lady always called her,



was soon a sharer of "granny's seat," for the chair was a very roomy one ; and while Archer pushed behind, to make up for the additional weight, Teddy walked by the side, and so they proceeded till they came to the shade of a large tree, beneath which there were some low stumps which had been cut smooth to serve for seats, and here they stopped to rest and listen to one of the dear old lady's delightful tales of the time when she was young.

"I wonder," said Agnes, when it was finished, "whether you had an uncle, too, like ours. I mean one who could give you *talking lessons* !"

At which the old lady laughed ; and then a tolerably correct account was given of that morning's *talking lesson*.

"Did you know any deaf people when you were young ?" Teddy asked, when they had done telling it.

The grandmother said she had known several, and began to talk of one lady who had lost her hearing after a fever in her childhood, and could not have heard even if a cannon had been fired close to her head.

"And did she always look as miserable as Mr. Sinclair does ?" he asked again.

"Oh no ; she was a very cheerful person, and had very high spirits when I knew her," replied Mrs. Merton ; "but I dare say she was very unhappy when she first became deaf, especially as she had been very

fond of music. She was partly used to her great trial when I knew her ; but, beside that, she had learnt the great secret of how to be happy better than most people learn it. What is that, my little man ? ”

Teddy coloured a little. He wouldn't have liked that question from any one else ; but his grandmamma might even call him a “ little man ” without offending him, though he was past eleven years old. So he said :

“ I suppose she loved God ; but would that hinder her minding being deaf ? ”

Mrs. Merton smiled. She had not been thinking, as Teddy fancied she had, of a little chat which they had lately had together, and did not quite expect this answer. But after considering a moment what she should say, she replied, “ The secret that I was thinking of is not found out in a day, Teddy, my boy ; it certainly begins and ends with the love of God, as you say, but it takes in more than I fancy you ever thought of. It wouldn't hinder us from minding being deaf, because when God takes away any of his good gifts He means us to mind it. But then you see the secret is not to live shut up in our own little world, and forget that there is a great world, and a great kingdom, too, to which we belong, if we really love God. When you repeat your prayers, you say, ‘ Thy kingdom come,’ and you ought to mean, ‘ *Let* thy kingdom come.’ Now this dear friend of mine was a very good subject to her

king; and that king was Jesus Christ. She wanted His kingdom to come and spread over the whole earth. She wanted every one to know and love Him; and she was often longing for the time when He will come again to our earth, and reign as king. So, don't you see, her heart was so full of these great and happy thoughts, that she was not always thinking of her own trouble. She knew that there will come a time when she will again have hearing ears, and when those ears will hear beautiful sounds such as they never heard in her childhood. And so, while she lived, she just tried to forget herself, and think how she could either help to get others into this kingdom, or comfort and cheer those who were already belonging to it. I dare say if you were deaf you would think that you could not help to teach anybody because you could not hear their answers: but she didn't stop to think; she just tried, and of all people, she took most interest in those who were deaf like herself."

"How *could* she teach them?" said Teddy.

"Oh! by all sorts of signs," returned his grandmother. "We don't know what we can do till we try."

"But, grandmamma," said little Agnes, "does not Mr. Sinclair love God?"

"Oh! I hope so," answered the old lady; "only you see his trouble is almost a new one, that is, he has only been deaf a year; and none of us know how hard it is

to bear *such* a trial patiently. But Uncle Merton is trying, you see, to lead his thoughts to other things."

"Uncle thinks that it is worse to be deaf than to be blind," remarked Archer.

"Well, and I think that it would be worse to me not to hear my dear one's voices than not to see their faces," replied the old lady tenderly. "When you talk to me it is your minds and your hearts that seem to show themselves; and those are more interesting than anything I can look upon."

"Oh, grandmamma," exclaimed Agnes, "I am sure you forgot the Bible. We are not so interesting as that is."

"I am afraid I did, my little one," said the old lady; "and yet I was thinking of it, too, and thinking how sad I should feel if I could not *hear* it read, and if I could not *hear* the gospel preached; and, after all, there is a great deal in the human voice. God meant it to speak to our hearts, and so it often does, when the same thing read does not seem to get at them. So now, while you are young, and have got your hearing, I advise you to make all the use you can of it. That is the best lesson you can learn from all your talks about ears and hearing."

"I can hear Aunt May calling us to come in," cried Archer, starting to his feet. "There! I heard that sound quicker than you, Master Ted."

CHAPTER IV.

A TALK ABOUT HEARING.

NEVER was there a more lovely spring evening than the one on which Mr. Merton left Oaklands to accompany his young nephews and niece back to their home. The birds were just having their evening gossip before retiring to roost; a cool breeze was rustling and whispering in the trees; while laburnum and lilac blossoms, then in the height of their glory, looked peculiarly superb beneath the rays of the setting sun.

Little Agnes, in great glee, protested that the laburnum trees wore many more yellow curls than she did, and that some of them were quite as long ones as hers; and as she tripped along by her uncle's side, and holding Archer's hand bravely made this mischievous remark, she added: "Oh! Uncle Merton, I do like coming to see you so very much!"

"But what becomes of Archer and Teddy's lessons?" returned Mr. Merton. "I have been thinking about that."

"Oh! you know it is a half holiday," said Archer; "but we shall have to get up early to-morrow to write our exercises. And now, please, for the finish of this morning's lecture. I like that sort of thing better than Latin or Greek."

"Because you are not set to it, Mr. Contrary," rejoined his uncle briskly. "But let me see, what was it that I was to tell you to-night?"

"You've got to tell us how these machines act," said Archer, pulling his ears.

"In other words, when I do this," returned Mr. Merton, striking with his walking-stick an old tin kettle which lay at the side of the road, "you hear a sound, but you neither know what the sound is, nor how you hear it."

"Yes; that's what I mean, and what I've been puzzling over for this week past."

Mr. Merton laughed, and remarked that he had certainly got upon rather a puzzling subject. "But," said he, "suppose there were no air between you and that kettle, how would it be, think you? would the noise be louder or softer?"

"Louder, I should think; for the air must deaden the sound."

"You think so, do you?" said his uncle. "Well, then, I'm afraid that you will find it hard to believe that if there were no air, or rather atmosphere (for

I do not mean wind), you would hear no sound whatever."

"Oh! uncle," cried all the children at once.

"It is quite true," returned Mr. Merton; "and I assure you that you cannot hear any noise unless there is some communication between the object which sounds and your ears. Now, what do I do to the kettle that causes it to ring when I strike it?"

No one could tell.

So Mr. Merton said again :

"I dare say my question seems a silly one ; I strike the metal ; so, of course, it rings, you think :—but why ?"

"I'm sure I can't tell," said Archer ; "but I should like to know."

"Then I'll tell you. When I strike it, I make the metal tremble or vibrate ; and then, because the atmosphere comes close against everything and therefore against the metal, that is made to vibrate, too. These vibrations come on like little waves till they reach our ears, into which they go, and produce the sensation called sound."

"How extraordinary !" said Archer ; "but what are all the different parts of the ear for ? How do they act ?"

"The waves go in at the passage of the outer ear, and first strike the outside membrane of the drum, just

as if a common drum were struck on one side. The drum is full of air, you know ; and so it directly begins to vibrate. These vibrations or beats run along that little chain of small bones which travel through the drum ; and thus they reach the inner membrane. That vibrates in its turn, and so makes the liquid which is in the labyrinth do the same. You remember, I hope, that the nerve of hearing is in the labyrinth. Well, when the liquid moves or vibrates, it presses on this nerve, which communicates with the brain, and so produces the sensation of hearing."

Agnes looked quite puzzled ; and so her uncle said again :

"Simply, it is just this. The waves of air come on from the kettle to your ear. Then they go in and push against everything inside ; and everything that is pushed being obliged to push the next thing to it, the nerve of hearing gets pushed last of all."

"But what is the use of all the different membranes and things in our ears ?" asked Teddy.

"The membranes and *things*," replied Uncle Merton, "no doubt, have each their own use ; but they are not all quite understood, even by the wisest of grown men ; so you cannot expect me to explain them to you. When you are older, you can learn more about them, if you like ; but I have told you now just what I thought you could understand."

"The drum, I suppose, is to make the most of the sound," said Archer. "A little tap sounds loud on a drum. And then, of course, it goes sounding through all the passages of the labyrinth, and they would make more of it too. But what sort of a thing is this hearing nerve?"

"A sort of thread, and it joins the brain, as I told you," said his uncle. "That is the great thing. Nerves, you see, make us conscious of *sound* as well as of pain; but it is because they touch the brain. Cut off the communication with that, and a man becomes deaf directly. The brain is the wonder of wonders in our bodies. It is the great throne of knowledge, and of the life of the body. However, you must not ask me how or why; for I can't tell you. Our Creator has that secret in his own keeping. We can never find out what life is. But we are going too deep for poor little Aggy."

"Oh! I am not tired of hearing you talk, uncle," said the little girl, "only it is all so wonderful. But the Bible says that we are fearfully and wonderfully made, doesn't it?"

"There's another thing I was thinking of," interrupted Archer; "you haven't told us yet why one person can hear better than another."

"Or see better, or walk better, or why one person has a more acute smell or delicate taste than another;

or you might ask why one person feels pain more keenly than another," said his uncle. "My dear boy, do you think that any two human bodies were ever made exactly alike? We may have the same bones, and muscles, and nerves, but the forms and quality differ in each. I am not an ear doctor, or perhaps I might be able to tell you more about it; but you and I can both understand that one drum will act better than another, and that as the muscle in one man's arm is thicker and stronger than another, so the nerves of one man's ear may be more sensitive."

"Yes, uncle," said Teddy, roguishly; "but don't you see, he wants to know what he's to do with his ears to improve them."

"What does he do with his arms and legs in order to make them stronger?" returned his uncle.

"Oh! I walk, and play cricket, and run races, and I row, too," said Archer, "and rowing has made my arms twice as strong as they were. Just feel the muscles!"

Mr. Merton laughed, and said:

"Well, you *use* them. Use your ears, too, and they'll improve wonderfully."

"I can't help using them," cried Archer, impatiently. "I needn't move my arms unless I like; but, if you speak, I can't help hearing."

"There is an old adage which tells us that 'There

are none so deaf as those who won't hear," returned his uncle, "from which I conclude that there are two ways of hearing, at any rate; but I see what you mean, and certainly it is not by mere *bodily* exercise that your ears will improve. It must be by listening, or paying attention, and thinking about the sounds which you hear; and these are certainly acts of the mind."

"Well, but, uncle," persisted Archer, "then dogs must have minds, and horses too, and parrots—why, parrots learn lots of things by listening."

"Never mind if they have," said his uncle, laughing, "we need not be jealous of their small thinking powers, for we can outdo them any day if we try; and after all, it was only of the lowest of our mental powers of which I was speaking. We were talking of learning to know sounds by listening, and not alluding to *sense* at all; while you, I think, make a better use of your hearing organs as regards sense than as regards sound."

Archer tried to look unconscious of this little compliment, as he said:

"But, uncle, you have not told us yet what makes one thing sound different from another."

"The kind of sound must depend on the character of the wave of air. There are some things that vibrate very strongly and quickly when they are struck, and some things very feebly, and the air will tremble or

vibrate just as the things do which are struck. You can understand that in this way the sounds will vary very much. Hard things, such as metals, vibrate most strongly and quickly, while air or liquids do so very feebly."

"But, uncle, the wind is not struck, and yet it makes a great noise," interposed Agnes.

"The wind strikes, if it is not struck," returned her uncle. "It comes sweeping over the surface of the ground, and rushing against the houses and trees; but the only reason why it makes so much noise sometimes, is because there is such a quantity of it. So is it with the thunder: we think that a very loud noise, but then we must remember what a quantity of air is disturbed by the discharge of electricity, or, as you would call it, by the lightning. It is not loud in proportion to the quantity."

"And what makes the difference between high and low—I mean treble and bass?" asked Teddy.

"In the bass notes the air trembles very slowly, and in the high, or treble ones, very quickly indeed," answered Mr. Merton. "There is one sound, at least, so high that some people cannot hear it at all—I mean the cry of a bat."

"Oh! I know," said Archer; "Ted often says, 'Didn't you hear a bat then?' when I heard nothing at all."

"And, by the by," said Master Teddy, "what in the world is singing? There is nothing struck, when any one sings, that I know of."

"Isn't there?" returned his uncle. "Well, I expect that if ever you have a master to teach you to sing properly, he will often say, 'Now, *strike* that note.'"

"I should call it puffing," replied Teddy, carelessly; "for I don't do anything but puff the air, as far as I can see."

"I should think that makes it shake, at any rate," cried Agnes, laughing; "but here we are at home, I do declare."

"And a very good thing, too, little curly wig," said her uncle; "for you have certainly heard quite as much of these deep things in one day as is good for a person of your age."

CHAPTER V.

A TRUE STORY.

ARCHER was always a welcome visitor in the nursery ; for his appearance instantly raised hopes of some very excellent game, far superior to anything which the little ones could get up by themselves. Besides, as nurse said, he really had a wonderful way with young children, and enjoyed playing with them as few boys of his age do.

And on one particular afternoon, some time after that visit to Oaklands, the account of which was related in our last chapter, the sight of his face made every one feel better. A cloud had, on the previous day, come over that usually merry nursery ; for the pet of the house had been very ill in cutting his first tooth—so ill, that for a little while his mamma and nurse had feared that he would die. The little hands were clenched, the eyes closed, and the face almost black ; and a low, frightened wail, broken by sobs, was the only sound that greeted the mother, as she ran up at the first alarm,

and took her darling from the nurse's arms. A warm bath soon restored consciousness ; but all that day, and all night, baby had been very ill ; and every one had been sad and anxious. The next day was chilly and wet, so that the children could not go out, but had to keep very quiet indeed ; and Agnes, young as she was, was obliged to try and amuse the three little boys who came between her and baby. She had done her best, poor child ! but it had been weary work, and never before, in her short life, had her heart felt so heavy.

On his return from school, Archer came softly in, and went straight to the cradle. It was a very large, old-fashioned one ; and there lay the dear babe with his pale face nestled against the fat rosy cheek of little Francis, who was also in a sound sleep.

"He is better now—much better," whispered nurse ; "the doctor said so this morning ; but he was very fretty, and I couldn't get him off, until Master Francis got in there, and said, 'Lay him down by me, nurse ;' so I just thought I'd try, and in less than two minutes they were both off like little tops. They're wonderful fond of each other, those two."

"Well, it's a good thing he's better," said Archer, with a sigh, that told how relieved he was ; "and I suppose I may as well take these young ones off into the play-room. They look as if they were awfully dull."

"Yes; if you'll keep them quiet, Master Archer. I was afraid to let them go, for fear they should wake their Ma. She was near wore out, poor thing! so she went to lie down a bit, about half an hour ago."

"All right!" said Archer; and he was just leading off his little troop, in mouse-like quiet, when Teddy burst in, crying:

"Hollo! Bob and Bill, who's for a——"

"Game," he would have said; but an impatient "Oh, Master Teddy!" from nurse, and then a whisk out of the room, cut short the intrusion. High words would have followed; but a stir, and a cry from the cradle, called the irritated nurse back to her babes; though not until she had highly offended Master Teddy, by calling him a thoughtless, unfeeling boy.

It was all Archer could do to get him quietly off with the others. He was bent on justifying himself from a charge which cut him to the quick; and not until a story-book, which Uncle Merton had lent that very morning, for the benefit of all who cared to hear it, was fairly begun, could he be induced to leave off protesting that he was no more unfeeling than nurse was herself.

But Bobby and Willy delighted in stories, either read or told; and they were clamorous for their brother to begin; so, with Agnes leaning over his shoulder, little Willy on his knee, and Bobby squatting on a stool



at his feet, he at length made a start, and left Teddy to pacify himself as he best could.

"There are some very large rivers in North-west America—and, by the by, I wonder if you all know where America is!" said Archer, interrupting himself.

"I do," returned Agnes. "It's right across the great Atlantic Ocean; and it was discovered by Christopher Columbus."

"Well, what happens in this story took place in the north-west parts, where it is often dreadfully cold, and people get frozen to death in the snow," said Archer, "and you see there are some large rivers in it. The book might say lakes, too; but it does not; and it might tell us that the Indians who inhabit the country don't live in any particular places, or cultivate the land, so as to get corn, but wander about, hunting wild beasts, buffaloes, and other creatures, such as wild geese, which, if they are not beasts, are birds; so it comes to the same thing. However, there are great rivers," and he went on reading, "one of which is called the Saskatchewan, which means 'strong current.' This runs through a country which only a few people have visited, and where no one can be said to live. Now all these poor Indians were, until lately, nothing but heathens; that is, they did not worship the one true God, for they had never heard of Him, but a Great Spirit, whom they supposed was always ready to do them harm if

they offended him, even without knowing it. Some English people, it is true, lived in the country—a few here and there, in houses called ‘forts’—and bought the skins of the beasts from the Indians, for the sake of the fur, which they sent to England; but these people had never built a church even for themselves; so it cannot be expected that they thought of teaching the Indians. At last, however, some few people in England, who loved God, began to feel sorry for these poor people; and they sent over one clergyman to see what he could do with them, and then another, and another, until now there are schools and churches filled with black people in many places; and other poor Indians further on learn of the good news of a Saviour, and they want teachers, too. And so some kind, good people, have gone and lived hundreds of miles away from any of their own countrymen, in places so cold that the milk gets frozen, and can be sent in paper parcels from place to place, and men and women either walk in great snow shoes, or ride over the frozen ground, most part of the year, in carriages, or sledges drawn by dogs.

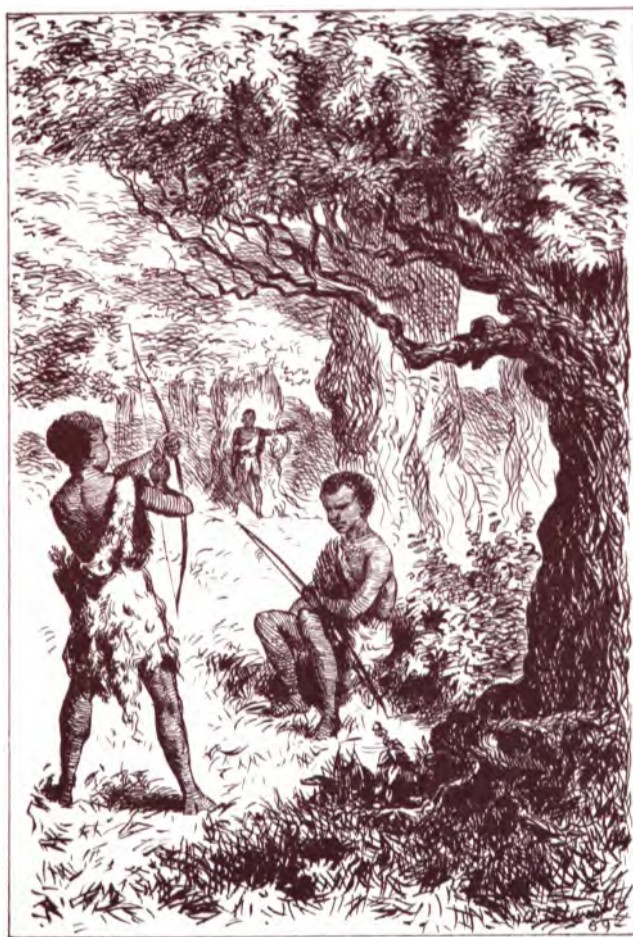
“There was one good missionary, whose name was Mr. Hunt, and he wanted to push further on into the wild country, where no one had ever been to tell the people of Jesus. And he heard that some way up this river Saskatchewan there was a lake in which there was plenty of fish, and that the bank of this lake would

be a good place for a missionary station. So he said good-bye to his wife and child for a little while, and set off to examine this river, taking with him a guide, a fisherman, and two Indian boys. They went in a canoe, hoping in a day or two to reach the spot.

"It was difficult work getting up this river; but at last they thought they heard the cry of lake-birds, and supposed themselves near the place. Then the fisherman and the elder boy got out of the canoe, hoping to reach the lake by a short cut, and get the net in before nightfall, so that they might have a good breakfast ready next morning. Very soon those two disappeared; and Mr. Hunt and his two companions worked hard to get the canoe on as fast as possible. Two great trunks of trees stopped their course in the night; and even when light came, and they got past this hindrance, they toiled on hour after hour, until night came again without their seeing the lake or their companions, who had taken no food with them. There were lots of bears about that part, too, and nearly all their shot was gone; so it was a miserable plight altogether. They thought of their two lost friends, and as their own food was nearly spent, it seemed as if the whole party must perish. Then they got out of the canoe, and climbed a hill, and the Indians also climbed up a tall tree, hoping to get a sight of them or of the lake. Still nothing was to be seen. Mr. Hunt said he would not return with-

out the poor Indians ; yet now he had only two meals left for his own party. Just then the text came into his mind which says : ‘ Call upon Me in the day of trouble ; I will deliver thee, and thou shalt glorify Me.’ So they fell on their knees, and prayed, and afterwards began to search for a path. While doing so a peculiar sound came to Mr. Hunt’s ears. It seemed as if the wind had brought it, and was very like the noise of distant voices. He called to the two Indians to look out, and before he could see anything himself, they said they saw two moving specks, which they declared to be human beings. In great joy Mr. Hunt fired off two charges of powder, and waved a white handkerchief. Directly the specks began to move towards them ; and in a quarter of an hour the keen eyes of the Indians told them that these were their missing companions. All fell on their knees again to thank God ; after which they set to work to get ready a good meal, with which to welcome their friends. As they had eaten no food for three days, we may be sure that they enjoyed it very much. Well, soon the canoe was paddling down the river again ; and on the third day they killed a large rat, then a goose, which made them a great feast ; and after that they met some Indians from whom they got more food ; and so, after all, the whole party reached home in safety.”

“ What a nice story ! ” said Bobby, when Archer



stopped reading ; but I don't like the Indians having better eyes than the English gentleman. Why should they?"

"Why shouldn't they? you might as well say," rejoined Teddy, who by this time had a little recovered himself. "Why, I suppose they make a better use of them."

"Here's a note at the bottom of the story," said Archer, "which says that Red Indian boys will hold up their hands with the fingers spread out for their companions to shoot between them, and that they are such good marksmen, that they are never afraid of getting one of their fingers hit by the arrow ; and also that the backwoodsmen in America will actually fire a rifle ball so as to hit the nut out of a squirrel's mouth, and never hurt the squirrel, unless they mean to do so."

"Oh! shouldn't I just like to be able to shoot like that," cried Teddy. "I shall ask papa to let me have some bows and arrows, and a target, and practise on the lawn ; so you had better all of you look out."

Little Willy's sympathies were, however, more drawn out for the squirrel ; and he said with a most indignant face :

"If I were a squirrel, I know what I'd do ; I'd take away the naughty man's gun, and shoot him with it."

CHAPTER VI.

A LESSON ON LIGHT IN UNCLE'S STUDY.

A **SPLendid** May morning succeeded to this wet and gloomy day; the clouds had all passed away, the sun was shining brightly, the birds were singing joyously, and all sorts of sweet scents filled the air.

And the clouds which had hung so heavily over the happy home of our young friends, had also nearly disappeared; for baby had passed a good night, and so had his mamma and nurse. Every one awoke refreshed and happy; and merry voices were heard again on the stairs, in the nursery, and in the garden; for there was no longer any need to keep quiet, as even baby himself was beginning to crow again, to pull little Francey's hair, and to make vigorous attempts to eat up his fat cheeks.

Breakfast was scarcely over before dear Aunt May appeared. She had been over early each morning lately; but this time she had good news to bring as well as to hear. Grandmamma was outside with the

carriage, waiting to take back the little ones to spend the day with her, and to be out of the way. That in itself was delightful; but, more than that, she was going to drive them somewhere, where a great surprise was awaiting them. It was to see somebody whom they had often seen, but who had not seen them for a very long while. Of course it took a long time to guess who this could be—longer than other young people could possibly be kept waiting; so I will let out the secret at once. They were going to visit blind Alice—blind, however, no longer; for a clever doctor had quite cured her; and she could now see almost as well as any of them, only she wore funny blue spectacles.

It would be impossible to tell how much jumping and clapping of hands followed this announcement; for the little Sunderlands had always felt an unbounded pity for poor, sweet, contented Alice. Archer and Teddy hurraed a good deal, and went off to school all the better pleased for being directed to walk straight to Oaklands after twelve o'clock, because Uncle Morton particularly wanted to see them. It was also hinted that grandmamma meant to bring Alice back with her to spend the day; so that they would have the pleasure of seeing her as well as the others.

Was there ever such a dear, good grandmamma in all this world! or could there have been a more fortu-

nate circumstance than that this should just happen to be another half holiday !

Agnes, Bobby, and Willy were soon equipped, notwithstanding that they had to stop and put on their best clothes. It was quite intended that Francey should go too, if he liked ; but he was rather shy ; and, while he was trying to make up his mind, baby gave his hair such a peculiarly loving tug, that it quite decided him to stay with " mine icker broder."

"What can uncle possibly want with us?" said Archer, as they walked to school ; and this question formed the topic of their discourse all the way there and all the way to Oaklands ; but their curiosity was turned into another channel when they got into Alice's company. She had told all about the operation before they came in, but very willingly went over it again for their benefit ; and there was such an interest in listening to her story and in watching her eyes, as they rested with intense pleasure on first one face and then another, that when a message was brought from Uncle Merton to ask if they would like to come to his study for a little while, they went almost reluctantly.

"Oh ! uncle," cried Agnes, as she entered the room, "what does Alice mean ? She says that her mamma sees pictures in her eyes now, but that before she went to that good doctor there never used to be any."

"Peep into that looking-glass," said her uncle, "and tell me what you see."

"I see myself," said the little girl, laughing.

"Not yourself! You are not in that glass, but here," returned Mr. Merton. "You see a picture of yourself; but now"—and he held a sheet of paper before it—"what do you see?"

"Nothing—at least, only the paper," she said.

"Well, now look into Archer's eyes and tell me what you see."

"Two tiny pictures of myself, one in each eye," cried Agnes; "but how came——"

"Stop a minute," said the uncle; "not so fast. Suppose a tiny sheet of paper were pasted over each eye—what then?"

"Oh! he would be blind, and I couldn't see any pictures," she answered.

"Exactly; well, little things which we may call sheets of paper were found to have grown over Alice's eyes; they have been taken off, as she told you; and now she can see, because there are now not only the pictures which you can see, but others, in the very back of her eyes, which you cannot see."

"Why weren't they taken off long ago?" interposed Archer, eagerly; "then she needn't have been blind all this time."

"It seems that some other doctor once looked at

them, and said they never could be cured," said Mr. Merton. "You know her mother is very poor, though she is quite a lady, so she could not afford good advice. It seems very vexatious to us, and we cannot help feeling angry with the first doctor; but you know God would not have let this happen if He had not known that the sorrow was good for her and her poor mother; so we must just be thankful that now it is taken away. Now, what question were you going to ask, little maiden?"

"I want to know how the pictures come into our eyes," she said, "when nobody paints them."

"The sun paints most of them," returned Mr. Merton, quietly, well knowing how many "Oh! uncles," this remark would draw forth.

Archer, however, objected:

"But we can see a little after the sun has set."

"Yes; very often the moon reflects his rays; or it may be starlight; or we may have a fire, or a lamp," returned his uncle.

"I don't think I ever saw pictures in any one's eyes, when it was only starlight," persisted the boy.

"No; but the pictures at the back of the eyes are always there, unless the person be blind, or it is quite dark," answered Mr. Merton.



"So,—so, you're going to give us a lesson about Eye-gate," cried Teddy. "I've found you out, Mr. Uncle: that's what you wanted us for."

"And that's why you lent us that story to read," Archer remarked, "just to make us curious, I suppose. Well, I've been in a brown study about eyes since I read it; so I'm very glad you are going to tell us something about them."

"It will be very interesting, I know," said Agnes, rubbing her hands.

"Don't be too sure of that, young woman," returned her uncle; "perhaps you mayn't understand it; and, anyhow, do you know that we shall have something else to talk about, besides eyes, just as we had something else besides ears."

"That was *sound*, which goes into our ears. Do you mean that something goes into our eyes," asked Archer, opening his very wide.

"I know if anything gets into mine it makes me cross enough," remarked Teddy, shrugging his shoulders.

"And, therefore, as something is always getting into them, unless they are shut, or it is pitch dark, I suppose you are generally in that condition," rejoined his uncle.

"Well, I don't know about that," said Teddy, raising his eyebrows almost to the top of his head, and

looking as if he was completely caught, somehow, though he could not see how.

"Something bad must be in them now, if you don't see that uncle means *light*," said Archer, laughing heartily at Teddy's dilemma. "The sun doesn't touch us, itself; but if it paints pictures, its light must get in to do it, I suppose. And, by the by, uncle, you told us what sound is; but what is light?"

"That has been long disputed," replied his uncle. "But it is now thought to consist of waves of a substance which we cannot see, and which is called ether. We generally say that it comes to us in rays, don't we?"

"Oh, yes!" said Agnes, "I've seen them going out from the sun, sometimes, and we call them butterflies' wings."

"Ah! but you can't *always* see the rays," said her uncle, smiling. "For instance, the light of the sun is coming to your face, now, all in little rays, and those rays are reflected back again in all directions; yet I can't see any of them. But if you darken a room, all but a small hole in the shutters of two opposite windows, you will see that light travels in straight lines or rays. Now let me tell you a story: There was a great man, once upon a time, of whom Archer has heard a little, I dare say; and his name was Sir Isaac Newton. He made lots of experiments about

light; and do you know he found out how to take a ray of light to pieces, and put it together again."

"Oh! how could he do that?" cried all the children.

"He bought a three-sided piece of glass, called a prism; then he darkened his room, all but one little hole, which he made in his window-shutter. He put the prism before this hole, and a ray of sunlight came in and passed through the prism to the wall on the other side. But when a ray of light passes from air into anything thicker and heavier, such as water or glass, it always gets bent out of its course; and there is something in the shape of the prism which causes it to bend twice in the same direction, that is, on going in, and on going out of the glass. Well, Sir Isaac saw that the whole ray did not bend alike, but that it got separated, and spread out something like a fan, and that when it got to the wall, it was not white, but all sorts of colours, red, orange, yellow, green, blue, indigo, and violet;—the red bent least, and the violet most. So it was plain that white light is made of all these colours."

"I've seen colours like that, when the sun shines through our lustres," said Teddy.

"And you have all seen a rainbow?" added Mr. Merton.

"A rainbow!" cried Archer; "yes, but the sky is not made of glass."

"No; but the clouds are made of water; and the rainbow is produced by the rays of light passing through the drops of rain, and getting bent as they do so."

"But the raindrops are not three-cornered," objected Archer.

"No," returned his uncle; "and I did not say that a three-cornered form was necessary, though it answers best for an experiment. Now what do you think this bending of rays of light is called?"

"I'm sure I don't know," said Archer.

"It is called the *refraction* of light," said his uncle.

"I've heard of reflection; but I never heard of refraction," said Teddy.

"That is a very different thing," replied Mr. Merton, and perhaps we will talk a little about it by and by. I told you about refraction, because I shall have to say something about it when we come to the eye; but refraction does not always produce colours, you know. It is only when a ray goes *through* a transparent substance that it gets broken into seven in this curious way; but now I am going to remind you of an instance of it which you have often seen without perhaps thinking about it. You row a little both of you sometimes; well, have you ever noticed that the reflection of the oars looks bent?"

"Oh, yes," cried both the boys; "and we often wondered, too, why it was."

"It is a case of refraction, you see," said their uncle.

"But you haven't told us yet how Sir Isaac Newton put the ray together again, uncle," said Agnes.

"Did you ever see a microscope?" asked Mr. Merton.

"Oh, yes; Cousin Walter has got one," answered the little girl; "and there is a round piece of glass to look through, which bows out on each side; I mean it is not flat like the window, but something like the outside of an orange."

"That piece of glass is called a *lens*," replied her uncle; "and I want to tell you something about it. Suppose some one held a lens at a little distance from your face; what would happen? You don't know, I suppose."

"No; I don't, indeed," said the little girl.

"This is what would happen, then," said her uncle. "Rays of light go out in all directions from your face, you know; they are rays reflected from the sun, we will say; and some of them will fall on this lens. Now, I must tell you that it is only the one that touched exactly in the middle that would pass straight through. The others would be bent or refracted,—those from your forehead down, and those from your chin up, and

so they would all meet in a point. That point is called the focus. You have heard your cousin talk of getting his microscope to the right focus, I dare say. When he gets it right, you see the thing clearly which you are looking at. Well, when Sir Isaac Newton had got his ray separated into seven by the *prism*, he put a *lens* in its way, and that brought all the seven together again by bringing them to a focus."

"What a clever man he must have been to think of such things!" said Teddy.

Archer laughed, and observed that he didn't suppose many cleverer men ever lived.

"And you won't forget that he has showed us that white is made of seven colours, will you?" said Mr. Merton.

"I can hardly believe it, though," said Teddy. "It seems so extraordinary."

"I'll tell you how you may prove it for yourself," said his uncle. "Get a piece of card, and paint it in compartments with all the colours of the rainbow, just in the right proportions, and then whirl it round on a pin, as fast as you can, and it will look white."

"Oh! that will be good fun!" cried Agnes; "we will try it to-night."

"Yes," said Archer, "we will; but I expect it will be difficult to do it quite right." And then he added, "So this wonderful light must come straight from the

sun, moon, or stars, or else from a fire or candle, and go right into our eyes, or else we couldn't see anything."

"No," returned his uncle; "that wouldn't answer; that would only make us see the bodies which give the light. The rays must fall on all the objects that we see, and from them be reflected into our eyes. That's the way we see things; and so, Master Teddy, I hope you understand now that, tender as your poor eyes may be, these little rays are constantly darting into them, and one after another, too, faster than you can imagine; for light travels very fast, you know."

"Does it travel quicker than sound?" said Teddy.

"Which comes first, the flash of lightning, or the clap of thunder?" asked Mr. Merton.

"Oh! the flash, and sometimes a good deal before the clap," said Teddy.

"Yet both are caused by the same thing, namely, a discharge of electricity, as I told you before. So you see light does travel much faster than sound."

"How funny it seems to talk of light travelling!" said Agnes. "I never see it move at all."

"Perhaps that is because it goes too fast," said Archer. "How fast does it go, uncle?"

"A million times faster than a cannon-ball at its greatest speed," replied Mr. Merton. "Think of that!"

"I can't," said Archer. "It's too fast to think of."

And at that moment there came a hammering at the door, and little Willy's voice was heard saying :

"If you please, Uncle Merton, somebody wants you in the drawing-room."

So the lesson was broken off for that time.

CHAPTER VII.

AUNT MAY'S LITTLE LESSON, FOLLOWED BY A TALK ABOUT EYES.

"AND so mamma is going to begin giving you lessons again to-morrow," said Aunt May, as she sat next morning in the drawing-room, with the little group around her. "What a good thing that you are not obliged to be idle any longer! I wonder now who has tried to be the best child, and to give the least trouble while darling baby was so ill?"

"Not Teddy," said Bobby; "he was a very naughty boy, and nearly woke baby up one day when he had just gone to sleep."

"Oh! Bobby, for shame!" cried Agnes. "I'm sure it's very naughty of you to tell tales; besides, you know Teddy forgot."

"What's that about me?" cried Teddy himself, making his appearance in the room at that minute.

"Only a very unkind little boy has been telling tales of you, Teddy dear," said his aunt gravely; "but

never mind, I don't want to hear any more about it."

Teddy, however, was not so easily satisfied, nor would he rest until his sister had told him what the complaint against him was. Then he fired up, got crimson with indignation, and declaimed in grand style about the injustice with which he was treated; ending by saying that as he neither saw nor heard the child it was quite impossible for him to dream of his being asleep.

Aunt May let him quite spend himself before she interposed; for she knew Teddy of old, and was used to these outbreaks; but when he was somewhat calm again, she quietly remarked that eyes and ears were not quite our only ways of acquiring knowledge.

"No," said the angry young gentleman, "we know some things by the smell, and some by the taste, and some by the feel of them; but none of these ways would have helped me much to find out that baby was asleep."

"I was not thinking of any of those ways," she answered in the same quiet manner.

"Well, I didn't know that we had more than five senses," returned Teddy, somewhat rudely.

"You do know though that you have a mind and a soul, Teddy," she answered gently. "You are not a mere knowledge-box with five entrances, are you?"

The boy looked as if he did not see the drift of this remark ; so she went on :

"When you get any piece of knowledge into your head, by means of your eyes,—we will say,—what becomes of it?"

"I don't know what you mean, aunt," replied Teddy, beginning to feel his curiosity somewhat excited.

"Well, a few days ago you saw your baby brother very ill in your mother's arms, and you saw her tears falling over him, and heard her say, 'Oh, I am afraid my pet lamb is going to die.' Now your head may seem to *you* like an empty box made first to hold such pieces of knowledge as these of baby's illness and mamma's sorrow; but I don't think it is. I know that in some mysterious manner which we cannot understand, your mind took possession of these facts, and that part of your mind which is called the memory received an impression which it will probably never lose. Besides that, I believe that your heart felt them; for *I* know, Teddy, well enough, and so does unkind little Bobby, that you have a heart and a very warm one too; and I am quite sure that you were very sorry indeed about poor baby's illness, though you did burst into the nursery in that thoughtless way on that particular occasion."

Teddy's countenance brightened and clouded again while his aunt was speaking, and at last he said :

"So you think I was to blame, then, like the rest of them."

"I think that one part of your mind is your reason," said his aunt, "and that if this had been properly used, it would have worked this way;—it would have said to itself, 'Baby was very ill all night, and awake most of the time, so, though cook did tell me at the hall door that he was better, it isn't very likely that he is quite well yet, and he may be asleep. I will go up very softly and see.'"

"But I didn't think, aunt," said Teddy.

"Oughtn't you to have thought, my boy?"

"I suppose I ought," returned Teddy, looking down; "but nurse was so cross, and called me *unfeeling*, when she knew I wasn't, and that made me angry."

"That was afterwards," replied his aunt. "You are not reasoning very well now, I think; but put yourself in nurse's place, and tell me how you would have felt, if you had been so anxious and worried as she had been, and then some noisy boy, who ought to have known better, had come bursting into the room, just as you did. What does your *reason* tell you that you would have thought of that boy?"

"I think I had better go and make it up with nurse, for we've never been friends since," cried Teddy, who was as ingenuous as he was hot-tempered.

"And what is it which makes you think you had better do so?" she asked.

Her little nephew looked very hard at her, but not finding it possible to read the answer to this question in her eyes, he only replied in a meditative sort of way:

"I'm sure I don't know, unless you mean my reason."

"I think now it is your *conscience* speaking," Miss Merton said. "When we have done wrong, and afterwards feel it, that is because by some means or other our conscience has been waked up. So you see we have many means of knowing things besides our senses. They are the gateways certainly; but inside the house there are very important receivers and improvers of all that enter by these gates. But I think we have talked enough now; and I must see about going home. You are to expect uncle this evening, he tells me, and if it is fine he wishes to finish his lessons out of doors. You won't object to that, I suppose."

"Oh, no!—oh, no!" cried all the children in a breath; "and please tell him to come early," were the last words she heard as she walked briskly down the road; after which Teddy went to make up his quarrel with nurse, and enjoy his first game of play with baby since that unfortunate day when she had turned him out of the nursery.

They had tea in the arbour that evening, and a

merry party they were. Papa had come home early, and said that he would like to have all his children together; so even little Francis was promoted to the honour of having tea with papa, and mamma, and Uncle Merton; and afterwards nurse brought baby out to get his share of kissing and petting—and a large one it usually was. It was a good thing that he was still too young to be spoilt.

A great deal of fun and merriment went on for a little while after tea was cleared away; but it was not long before first Archer, and then Agnes, whispered several times into Uncle Merton's ear, and uncle said, "Very well;" and then Teddy was called to leave his game of skittles and come away with them to the seat under the great walnut-tree, mamma calling after them that Agnes must not stay out very much longer, at least not after it got dusk.

"Let me see, how many pupils have I to-night?" said Mr. Merton, as he seated himself.

"Two boys and one girl," said Teddy, "and two and one generally make three. That's not a hard sum, uncle—is it?"

Mr. Merton pretended to be going to give his saucy nephew a great box on the ear, whereupon that young gentleman laughingly dodged out of the way, and Archer said:

"But what if each pupil has two pupils of his own—

that'll make nine, won't it? So you have got a large class, uncle."

"I am glad to see that you can count better than your brother," rejoined Mr. Merton, drily; "but I'm afraid that my six little black pupils are quite deaf, so what shall I do?"

Agnes laughed heartily, and said, "I think I can count better still, for now I can see two other little pupils, and they are in the middle of uncle's own eyes, so that makes eleven altogether."

"Well, now, to be serious," said Mr. Merton, "does any one know anything about these said black pupils of ours?"

"I don't!"—"nor I!"—"nor I!" cried all the children.

"Then I must tell you that they are just little holes to let in the light. They are like the doors of some dark room; for our eyes are each of them just a little dark room, more like the inside of a globe than anything else. And it is by these holes that the light enters."

"Uncle," interrupted Archer, "I've often noticed that when people stand in a bright light, looking out of a window or up at the sun, their eyes look much lighter than they do when they have their backs to the light; what is the reason of that?"

"It is because this little hole can make itself larger when it wants to take in all the light that it can get,

and has the power of contracting, or half shutting up, when there is more than it wants."

"I should have thought that the pupil would change its shape, and become like a line, instead of a round thing, when it tried to make itself smaller," said Archer, thoughtfully.

"Ah! but it never does; you see it is so beautifully made," replied Mr. Merton.

"What do you call the other coloured part of our eyes, uncle?" asked Teddy. "I mean that part which is grey, or blue, or black, or brown?"

"That is called the *iris*. If you look closely into any one's eyes you will see that this part never is really any one plain colour, but that it is always mottled or streaked, as the rainbow is. The iris acts something like a Venetian blind; but it opens and shuts in a different way, more as a daisy opens and closes its little rays. It is by the movement of the rays of the iris that the pupil becomes larger or smaller. You should each get somebody to let you look close into their eyes and watch these changes, and then you will see what I mean."

"And what is the inside of our eyes like?" asked Agnes.

"I think we had better begin with the outside," said her uncle. "Suppose you were to see the whole of one—I mean taken out of somebody's head—what would it look like?"

"A large white ball," answered Archer, "with just a little part in front coloured. I know that because I have seen the whole of fishes' eyes, and there is much more white than there is coloured."

"And hanging from it would be the muscles which fix it in its place in the head, and give it the power of moving in the socket; and something else, which is really the most important part of the eye. Who can guess what that may be?" said Mr. Merton.

"I can't," said Agnes, at once. But Teddy puzzled a little while, and Archer rather longer, before they gave up.

Then their uncle said:

"Have you forgotten about the nerve of hearing?"

"Oh! and is there one for seeing?" exclaimed Archer. "I never thought of that."

"Of course there is," returned Mr. Merton. "There must be something to carry the sense of sight up to the brain, or else all the machinery of the eye would be useless."

"How curious it seems!" said Agnes.

"And now let us see if the inside of the eye is not curious too," continued her uncle. "We saw how the rays of light come in at the pupil, but when they get in what do they do?"

"Uncle," interrupted Agnes, "do you know I was

looking very close at my eyes in the looking-glass to-day, and I didn't see any holes."

"No," he said, "because there is a very thin skin all over the front of the eye—I ought to have remembered to tell you that—but the rays go through that as easily as if there were nothing. The eye has two coverings, or coats, if you like that name better: the outside one is white, and very strong, except over the front part, where it is quite transparent; and the inside one has a hole just where the pupil is. That inside one is lined with a sort of black paint, of which you will see the use directly. But now about the interior of the eye itself—what do you think there is in it?"

"Are there any prisms or lenses in it?" asked Teddy, laughing.

"I never heard of any prisms," returned his uncle, "but there certainly are substances which answer the purpose of lenses."

"Oh, uncle!" exclaimed Agnes, vehemently. "Do you mean that there are things like those glasses in Cousin Walter's microscope stuck up inside our eyes?"

"I do," said Mr. Merton, smiling at her eagerness; "at least things which serve the same end; for just in the very front of the eye, under that thin skin, there is, first, some watery stuff—then there comes a thing which looks something like crystal, and is just of the form which you described when you were telling me



about the glass in your cousin's microscope,—that is, not a flat thing, like the pane of a window, but a thing that bows out on both sides something like an orange, only not nearly so much, and is thick only in the middle. Well, now, this curious thing is actually called 'the crystalline lens.' But, Archer, what is the word for that particular sort of shape?"

"Isn't it *convex*, uncle?" said Archer, after thinking a minute.

"Quite right, my boy. Now, behind this crystalline lens, which is a more perfect one than any that man ever made, there is some more stuff which looks something like glass, and which takes up a great part of the eye; and then at the back comes the *retina*. You must try and remember that word, because it is on this retina that all the pictures are drawn."

"What sort of thing is the retina?" asked Teddy.

"Well, it is really the beginning of the optic nerve, or nerve of seeing," said his uncle. "But instead of being only a string or thread, it is expanded all over the back of the eye, like a flower-cup; and it is placed just in front of that black curtain of which I told you."

"What lots of curious things there are in our eyes!" said little Agnes.

"But you haven't told us how they act yet, uncle," said Archer, rather impatiently.

"A ray of light, or a great many rays of light, if you like, come in at the pupil," said Mr. Merton,— "we got as far as that some time ago,—now let us go on. They pass through the watery stuff, through the crystalline lens, and through the glassy stuff, until they touch the retina at the back; and there they draw the picture of the things from which they are reflected."

"But they are not always reflected," objected Archer. "They sometimes come straight from the sun."

"Never; unless you happen to be looking at him," returned his uncle; "and then they draw the picture of the sun."

"But what is the good of all that stuff that they pass through?" Archer asked again.

"What did Sir Isaac Newton's lens do to the ray broken up by the prism?" asked Mr. Merton.

"Put it together again, by refracting the rays, so that they met in a point—I mean at a focus behind it," said Archer.

"I am glad you remembered those words," returned his uncle smiling. "Well, now that is just what the crystalline lens in the eye does, and the watery and glass fluids help in the operation. If the rays came in anyhow, there would be no picture formed, and we should see nothing but confusion, just as when you

look through a telescope, or into a microscope, which is not set at the right focus. The rays must be got to meet in a point to form a clear picture. But one thing I must tell you about the pictures in our eyes, and that is, that they are all upside down."

"Upside down!" cried all the young folks together.

"Yes; and for this reason—that the rays are so much bent, that they cross one another before they reach the retina. For instance, the reflected rays from that tree, opposite, come into our eyes; and when they have passed through the lens, the bottom ones have crossed the top ones, so that the tree is reflected upside down, as I said."

"But I don't see things upside down in people's eyes," said Archer.

"No; you only see a reflection, just as you would in a looking-glass, remember, and not the picture at the back," replied his uncle.

"But,—but," interrupted Teddy, "we look at so many things, one after another—how is it that we don't get a muddle of pictures in our eyes?"

"Because that black lining to the inside coat absorbs the pictures as soon as they are made, and leaves a clear place, ready for another."

"And is the *feeling* of seeing taken to the brain by the nerve that goes out from the retina," said Archer,

"just as the feeling of sound is carried to it by the hearing nerve?"

"Yes; but no one can tell how we see after all, you must remember that. The other part we can understand; but this is a mystery."

"How can anybody say that there is no God!" exclaimed Archer. "Why, our eyes only are enough to show that some one must have made us. All that machinery couldn't have come by chance. Just imagine picking up a telescope, and thinking it made itself! And our eyes are better than telescopes any day."

"Does anybody think that there is no God?" asked little Agnes, gravely.

"Yes," said her uncle; "at least there are people who say they think so."

"They must be very wicked people, I am sure," she said, "and very silly people, too. I don't think they can be so wise as little Francey."

"They think themselves very wise," returned her uncle; "but what does the Bible say about them, Archer?"

"The *fool* hath said in his heart, there is no God," answered the boy, emphatically. He looked thoughtful for a minute, and then added: "I suppose in those days, people were ashamed to say such things out loud. How very odd it seems, that now, when we

know so many more things than they used to do, people are not still more ashamed!"

"It shows that we want another kind of knowledge, besides what comes in by the five gateways," replied his uncle. "Some day we must have a talk about that, and about the way to get it; but it is beginning to grow dark and chilly; I think we ought to be going indoors."

CHAPTER VIII.

AN AFTERNOON ON THE RIVER.

"OH! do come on the river this afternoon," cried Archer, one sultry July day. "You can work under the willows as well as here, mamma; and Ted and I can pull you up there quite easily. Perhaps we shall be able to breathe there, which I can't here."

"Very well," Mrs. Sunderland said, "I have no objection."

She seldom objected, if she could help it, to accompany her boys on the water, because, though the stream was quiet, and the boat a very safe one, she was never easy if they went alone, distrusting their spirits rather than either their rowing or swimming powers.

Archer had taken to drawing that summer, in the first instance at her suggestion; and he was very hot about it, and, as she knew, bent on making a sketch of a certain Swiss cottage which, raised on stakes to some height from the ground, in a totally un-English manner, stood by the water's edge.

He seemed naturally to have an eye for the beauties of Nature ; and his mother loved to encourage the taste ; which it was not difficult to do in a picturesque part of the country, such as that in which they lived. I think that England could hardly show a prettier river than this which ran at no great distance behind their house. So serpentine was its course that it formed several sharp angles within a few miles. On one side wooded hills rose from its bank ; and on the other, the open view of meadow stretching away as far as the eye could see, was delightfully broken here and there by groups of trees, many of whose branches dipped into the stream. Now and then only was there a rural-looking cottage to be seen, or perhaps a mansion of some considerable pretensions. Little green islands were dotted here and there along the river's course ; and so clear and still was the water on this afternoon that all the reflections were perfect.

As they went along, Teddy was full of mischievous fun ; but Archer was particularly quiet, until they reached their shady nook ; and then he gave vent to one of his heartiest bursts of enthusiasm, and declared that he must begin at the beginning, and draw every bit of that river ; for that there certainly was not one like it in all the world ! At which Teddy laughed, and teased his brother about going mad over everything that he took up.

They were just comfortably settling themselves to work; for Agnes also had her little block, and was trying to keep up with her brother's progress, when Mrs. Sunderland directed their attention to the distant figure of a man walking slowly along the banks, and coming in their direction.

"Do you know who it is?" she said.

The boys laughed, and said, "how could they!"

But Agnes, who, like her mamma, had very long sight, after gazing for a minute or two, cried:

"He's reading, I'm sure. Oh! I hope he won't fall into the water!"

"Well, you ladies must carry some kind of invisible telescopes about with you," said Archer. "I'm sure I couldn't tell whether it were a man or a woman."

"He's not reading now," said Agnes again; "but he is walking faster; and now he is coming this way. There, he sees our boat; he has got his hand up to his eyes to shade off the sun; now he is coming on quicker still. Mamma, I declare it is Uncle Merton!"

"Hurrah!" cried the boys. "Three cheers for Aggy's eyes and Uncle Merton!" And they quickly began to unmoor their little craft, that they might cross the stream and take him in.

It was no difficult matter to induce Mr. Merton to "*come on board*;" for he also was hot as well as tired;

only he bargained to finish what he was reading, to which neither Archer nor Agnes objected, for they were quite bent at present on their sketching. Consequently, Teddy, being no longer required as reader, was, as he expressed it, thrown out of work, and didn't know what to do. So, hanging over the side of the boat, he spent a little while in watching the fishes, and in making, from time to time, a dive after one with his hand; but to this, on account of the jerking it occasioned, Archer strenuously objected. He next, therefore, bethought himself of some fine string which he had in his pocket, and of which, with the addition of a bent pin, and a switch cut from the nearest willow, he determined to make a fishing apparatus. The string was considerably entangled; so the construction of this affair took some time. At length it was put into the water, and patiently did the young contriver watch for the success of his scheme. There was one rather large fish that he particularly hoped would bite. It had hovered about that neighbourhood for some time; but, oh dear! just as it came to take a look at the queer thing hanging from the boat, a heron dived and seized its prey!

"Well, you are a good fisherman! that you are! But that fish was booked; and it wasn't honourable to cheat me out of it, you old scamp," cried Teddy; and then seeing his uncle look up rather amused at his discomfiture, he continued, "What eyes those herons

must have. I didn't know that a ghost of one was near me!"

"They see what they look for, and look for what they want," returned Mr. Merton, "and that is more than some people do; but we should have to train our eyes and practise well before we could make such a successful pounce."

"Like the Indians in your story, uncle," remarked Agnes, but without looking up from her drawing.

"We are training ours now, aren't we? and I think they are a little better for it already," said Archer; "but Ted won't have anything to do with such a low art as drawing, though I don't think he is altogether content with the powers of his black orbs."

"I'm going to learn archery," returned Teddy rather grandly, "and that will answer the same purpose, and be better fun a great deal."

Archer's work was completed soon after this, and he carried it to his mother to be inspected, saying, "Now, mamma, please pull it to pieces as much as you like, for if this doesn't do, I'll try again another day. I want to have it quite right." But Mrs. Sunderland did not feel disposed to find much fault. She was too well pleased with his success, and said to his uncle:

"I think he will draw some day, if he takes pains; don't you?"

"Yes; or succeed in anything else which he takes

up in that spirit," replied Mr. Merton, cheerily; "and here comes Aggy with hers. Why, that is first-rate! Come, we shall have something to show when we get home. What a pity, Ted, that you couldn't take either the fish or the heron with you."

"If you don't object, sir," said Teddy, drily, "I will take something more valuable than either, and that is, a little information. I haven't been quite so idle as perhaps you may think; for whilst the rest of you have been so busy, I have been *reflecting*, and reflecting too on *reflections*, about which you promised some time ago to enlighten our ignorance a little."

"Teddy," said Agnes, chuckling, "what grand speeches you do make. I can't think how you do it. Does Mr. Middleton teach you?"

"No," said Mr. Merton, "it is only his native eloquence showing itself betimes; but come, on what point is it that you require enlightening?"

"I want to know," said Teddy, "why there are reflections in some things and not in others? I was looking into the water just now, and I saw myself; that was because the rays of light off my face went in there, and made a picture of me, wasn't it? Then they were reflected back to me, and so I saw it, I suppose; but why don't I see myself in my slate, or in mamma's shawl, or Archer's jacket? I don't understand."

"Teddy," cried Archer, bursting into a hearty laugh,

"did any one ever hear such an idea! How can you ask such questions?"

"Come, Mr. Archer, that's not fair; you like asking profound questions well enough yourself sometimes; now Teddy is taking his turn, and quite right too. See if you can answer his question, since you think it so very absurd," said his uncle.

"I didn't say it was absurd," returned Archer, "only it seemed such a ridiculous idea."

"Well, the simple explanation is, my boy, that a smooth surface, and at least something opaque at the back of it, is necessary in order to form a picture; because if the surface is uneven, the rays are dispersed, and neither received nor returned to us in anything like regular form."

"What do you mean by opaque, uncle?" asked Agnes.

"Anything which you cannot see through, such as a table, or the quicksilver at the back of a looking-glass, or the ground at the bottom of the water. If a thing is transparent, the rays go through it; but if it is opaque, they are sent back to us."

"But mamma's shawl is smooth," said Archer. "Just feel how smooth it is?"

"I don't think it would take a polish even like a mahogany table, much less like a copper coal-scuttle," replied his uncle; "and if you were to look at a bit of

it through a microscope, you would probably think it anything but smooth or fine either. But now I am going to puzzle you all. What is the reason that things only look coloured by daylight? There's a question for you! You know that you often see the forms and shapes of things when it is twilight, and long after the colour has gone. What is the reason of that? Why does the colour go before the form?"

"I'm sure I don't know," said both the boys at once, and Agnes looked completely puzzled.

"Come, it's the last thing that we are going to learn on this subject," said their uncle; "try and find out."

"I haven't the least atom of an idea," said Archer; "so I don't know how I am to try. I've got nothing to set me a-going."

Mr. Merton smiled. "The fact is then, that you don't know why one thing looks red, another green, and another blue, or any other colour."

"Because they are so, I suppose," said Archer bluntly, and almost as if he felt himself insulted.

"Mamma thinks, I see, that I am going too deep for young brains, and that there is some danger of injuring them," remarked Mr. Merton; "but I think I can tell you a little about it, without inflicting any very serious damage. Who recollects about the ray of light, and how many colours it is made of?"

"I do," said Agnes; "and it is made of seven colours, uncle—red, orange, yellow, green, blue, indigo, and violet."

"Very well," said Mr. Merton; "and when this ray touches the pane of a window, what happens?"

"It comes right in, I suppose," said Teddy.

"Yes, all of it; but now when it has got into the room, let us suppose that it falls on a green easy-chair; what happens then? That is an opaque thing, you know."

"So I suppose that it just gets sent off again about its business—reflected, I mean," said Archer.

"No; you are wrong there," said his uncle; "and probably it is my fault that you are so; but I could not explain this when we talked about reflection of light last time, lest I should puzzle you by telling you too much at once. *All* rays falling on an opaque substance are not reflected, but only some of them: the rest are absorbed, *gobbled up*, we may say, Aggy; and you will understand that word better. So when the sunlight falls on the green chair—that chair is very greedy—for it gobbles up all the red, orange, yellow, blue, indigo, and violet rays, and only sends back the green ones. If it were a red chair, it would do the same by all but the red, and so on."

"Oh, that is odd!" exclaimed Archer; "then if there were no light, there could be no colours at all;

and I suppose we should all be black ! How very nice ! Aggy, my dear, do you know that in the middle of the night, your face is as black as any negro's ? Only think ! ”

“ There is some difference in the stuff of which it is made though,” rejoined their uncle—“ something in the skin which naturally gobbles up the dark rays, and gives back only the light ones ; so she never can be seen to be black—*whatever she may be in reality*,” he added mischievously. “ And now, my young folks, I hope you do not mean to tease me by any more questions about eyes or light at present ; because, if you do, I warn you that you will not get any answer. You must think of something else to plague me about, next time we get a chance of a gossip, for I’ve no notion of getting a scolding from mamma for my pains.”

So saying, Mr. Merton sprang on shore, and began to help his sister out of the boat, leaving the three young ones to put up the oars, collect their treasures, and then follow when they liked.

CHAPTER IX.

THE VISIT TO ALICE.

"WHAT shall we tease uncle about next? I want to find something soon," said little Agnes, as she bounded down the door-steps after her brothers, one fine morning, "because, you know, we are all going to see grand-mamma on Saturday, and I don't think it would be very hard to squeeze a gossip out of uncle."

"Ask Cæsar," said Teddy, laughing; "perhaps he'll tell you how to squeeze your gossip, and also how it should turn out; but I don't think the recipe is in our cookery book."

"Yes; ask Cæsar," added Archer, patting the dog; "he's got plenty of brains in this fine head of his; I only wish he would just tell us what he thinks about, sometimes; for I am sure it would be good fun to hear."

"I'm glad we gave him that name," said Teddy; "for I think it suits him very well."

"Why?" asked Agnes.

"Oh! because he'll be something like Cæsar, one of these days," returned Teddy. "He is a regular *great* dog, I know."

"Not *very* big yet, Teddy," said Agnes; "he is not nearly so big as Captain Thompson's dog, or Mr. Walker's either; but perhaps he may be some day; for he is growing very fast."

"I *didn't* mean great in that way," returned Teddy disdainfully; "you girls know nothing at all! What's the good of your doing lessons every day, if you don't know yet that Cæsar was a great fellow in quite another sort of way,—a great soldier,—general, I mean; and a brave man, fond of war, and that sort of thing; and an ambitious sort of fellow, too,—a man that liked conquering countries better than anything,—ah! and a clever chap he was into the bargain; for he could write books—*Latin* books, too, not your easy English things that anybody can make; but regular good Latin ones, fit to give fellows to read in school!"

"Which some fellows don't always know as well as they might," added Archer, for he saw the colour come to Agnes's cheeks, and a tear very ready to start from her eye. "Besides," he added, "*boys* don't always happen to know much about Mr. Julius, when they are nine years old, though they may have scraped acquaintance with him by the time they get to eleven. And after all, I don't know that Cæsar is such a very good

name for Brownny—for of all things in the world, *he* hated to have a master, and Brownny doesn't mind it the least bit. I believe he has known that you were his master ever since you first told him so; and I'm sure he's never so pleased as when you are ordering him about."

Teddy's rising wrath was appeased by this conclusion to Archer's speech; and bestowing some hearty pats on Cæsar, he said in an off-hand sort of way:

"Well, he's a warlike dog at any rate; I think he would make a good hunter."

"What is he after now?" said Archer. "Just look how he goes barking and snuffing about that bank."

"I expect he scents a rabbit," replied Teddy. "Just what I told you. He wants to conquer him and take him prisoner."

"Archer!" exclaimed Agnes, seizing him by the arm, "Cæsar *has* told me. I'll ask Uncle Merton to tell us about 'Nose-gate.'"

"That wouldn't be a bad idea," replied Archer; "at least, not if you are prepared to eat humble pie; for I believe the dogs will beat us all hollow in that department."

Agnes laughed, and said that she thought it would be very queer if we were all to go snuffing about the ground like Cæsar, though she supposed we should,



if we could smell out our friends or enemies as easily as he could.

On which remark Teddy improved by setting to work to snuff all about the bank just as the dog had done, saying :

“Oh! if I could only smell out a Frenchman, wouldn’t I have a shot at him with my bow and arrows!”

“How valiant some people are when no enemy is near!” exclaimed Archer, in a bantering tone; “one could wish their courage to be put to the test.”

And instantly Teddy turned on him, crying :

“All right! Do it then!”

So a mock fight ensued, which happily ended as few such fights do—I mean, without ruffling the temper of either party.

There was not, however, much time to spare, as they were on their way to see their old friend Alice, to whom they were carrying the present of a delightful story-book, sent her by their mamma; and they were bound to be back by a certain hour.

So Agnes, on seeing them set to, was by no means easy in her little mind, knowing that such affairs of honour generally occupied a good deal of time; and she therefore set off running, calling to Cæsar to follow her, and declaring that she should go on by herself. Perhaps this had the desired effect; at any rate, the

two valiant knights followed her very shortly, panting and laughing, and each declaring that he had gained the victory.

"At least," said Teddy, "I *should* have gained it, if I had only been two years older. Ah! wait till I am, old fellow," he added, "and then you shall see."

"Yes," said Archer, "we *shall* see."

And the three went laughing on after that as fast as their legs would carry them.

They reached Alice's home by eleven o'clock, and not having to be back until one, they reckoned that they had a good hour to stay with her. She was seated on a bench in front of the house, but with her face turned away from the road by which they were approaching. A book was on her lap, in the contents of which she seemed much interested, though she was singing like a young lark while she read, and at the same time her fingers were engaged in knitting a sock at a pace so rapid, that Agnes, who had only lately learnt the art, was utterly perplexed and discouraged.

"How jolly she looks—doesn't she?" whispered Archer, as soon as he caught sight of her. "I should think she does enjoy getting back the use of her eyes, if any one ever did! Let's see if we can get up to her before she finds out that we are near. Hush! don't speak."

So they all crept quietly on, endeavouring not even

to crackle the gravel under their feet for a few paces. But it was of no use, Alice's ears were too sharp for them; she caught the sound of footsteps, and in an instant was at the gate to meet them, her face beaming with pleasure, as she said :

"Oh! it's no use trying to take me in. I knew it was you in a minute, and I'm so glad. Mamma is out, but she'll soon be home. Come and sit with me in my nice shady seat, and there we can watch for her."

"How delicious this jessamine is!" cried Agnes, as she got into the corner of the green bench, and buried her face in the blossoms. "And what a dear old tree this is to come bending over your seat like this! It would be dreadfully hot if it didn't, for the sun is so scorching to-day that I feel quite baked with walking in it."

"These roses are the best," said Archer; "they are sweeter than the jessamine any day. Besides, what a colour they are! I should think you are just glad you can see them, Alice!"

"Oh! I am glad—more than glad," said Alice, fervently. "Do you know I sometimes cry when I think how glad I am. There are so many beautiful things to look at! I never thought there were so many pretty things; but the blue sky is the prettiest of all—it is so soft, so soft, and——"

"I should think these bees are rather good fun to

you—aren't they?" interrupted Teddy. "Uncle Merton's bees have just swarmed, and, do you know, he has got three new hives of them. I wanted him to give one to me, but he says they are all promised, and so he can't."

"Oh no; you can't have them, indeed," cried Alice, quickly; "they are all promised, I know, for they are promised to me—that is, I mean, to the missionaries. My bees have been missionary bees ever since I had them; but last year a cousin of mamma's, who had been out among the poor black people in Africa, came to see us, and he told such lots of good things about negroes coming from one place with a queer name, and another place with another queer name, all to ask him for a teacher to live in their country and 'talk plenty' to them every day about the true God. So two new ministers were wanted even then, but there was not enough money to send them, and it seemed so cruel to say so. That was why he asked us to beg money from all our friends, and try to help them. I was a poor blind girl then, and I used to think how dreadful it would be to be blind, and not to know God too, and I used to sit and think what I could do. My bees had always been missionary bees, and sometimes I got a good deal of money by selling the honey and the new swarms; but now I wanted a great deal more. So I told everybody I knew about it, and when

I told your uncle, he said that his bees should be missionary ones too, and that I should have all the money to send to our cousin ; so, you see, you can't have them, Teddy. But never mind, the black boys want them more than you do."

Teddy laughed, and shrugged his shoulders, saying he "didn't know about that."

But Alice had not done her story.

"I was a blind girl then, you know, and I couldn't see any of the beautiful, beautiful things that God had made ; but," she added, in a lower tone, "I could see with my mind a great many things that are more beautiful still, for God had been very very good to me, and made me know about them, and sometimes I used almost to seem to see those things that the Bible says, 'Eye hath not seen, nor ear heard, but which God hath prepared for those who love Him ;' and when I felt like that I didn't much mind about being blind, only it used to seem so dreadful about those poor black people. Mamma told me that, as I knew how to knit, I might sell the things I knitted, and that helped a little ; but still it seemed as if I could do so little—such a very little. Then your uncle told me one day that I could pray for them, and he said that would do more good than anything, because God was sure to hear, though I might never know it. Since that He has answered my other great prayer, and made me see ;

so I hope He heard that too; and now I *can* see, perhaps some day I shall be able to do a little more to help them."

"But, Alice," said Agnes, "you've got a missionary box, too, and I know you get lots of money in that."

"Not so much now," said Alice, with a sigh; "people don't care to give me so much now, I'm not a blind girl any longer; so I'm afraid they only gave the money just to please me. I wanted them to care, too, for the poor negroes. But your uncle gave me something not long ago, and I *think*," she added, her face brightening, "that it was a great deal—it looked *almost* as if it were gold as it went in—only he put it in so quickly, and wouldn't let me see."

"Perhaps other people sometimes put money in when you don't see," said Archer.

"Ah! but I feel the weight every day, and it never seems to get heavy quickly now," returned Alice. She knitted on all the while she was talking as fast as possible, and even when she dropped some stitches she took them up without once looking at her work.

"I *can't* think how you do it," said Agnes, after watching this feat, as she thought it, performed without the least trouble.

"Oh! that's one use of having been blind, you see," said Alice, cheerfully. "I suppose the ends of my fingers learnt to see when my eyes couldn't."

At this moment Alice's mother appeared at the gate, and her entrance reminded the young folks at the same time of the object of their visit, and that it must be getting late. Alice's delight on the reception of any little present, or token of love, was so great that it was always a pleasure to take her anything; and a new book was a great treasure, as their library was but small.

Her mother remarked that she was getting on with her reading beautifully, at which all the young visitors stared; but she explained that until lately she had always read by feeling, and now she had to get used to the look of the words.

"Oh! what a horrid bore!" exclaimed Teddy; "only think of having to learn to read twice over!"

But Alice did not hear this remark, as she and her mother were just then carrying Agnes off to look at some splendid pinks behind the house.

Seeing this, Archer touched Teddy's arm, and whispered something in his ear; and both then felt in their pockets and ran into the house for a minute, after which they followed their sister, and were particularly loud in their praises of the flowers.

Only, after they had left, Alice found her dear missionary-box a good deal heavier.

CHAPTER X.

A GOSSIP ABOUT NOSE-GATE.

SATURDAY came, but when the blinds were first drawn up, and an anxious peep taken at the state of the weather, a very gloomy feeling took possession of our young friends; for it was raining so hard that there seemed no hope whatever of a day at grandmamma's. During breakfast there were one or two gleams of sunshine, and Archer went to the window, and declared it was going to clear up. But in a few minutes down came another heavy shower, and down went the spirits of the children. Little Willy began to cry; Bobby got very crusty; Agnes's face clouded like the sky; and the two elder boys went off to school with a groan.

Nevertheless, in the course of the morning a carriage drove up to the front door—a large roomy carriage with nobody in it! As thundering a double-knock, however, announced its arrival as if it had brought the Queen. It was answered directly, of course, and then

Agnes, who was listening on the stairs, heard with delight a man's voice saying :

"Come for the children, if you please. Mrs. Merton don't care as how they should be disappointed ; so she says, will your missis be good enough to bring 'em ; and she'll find games for 'em indoors, if so be it don't clear up, which she hopes it will in the afternoon."

The message was not long in getting reported to Mrs. Sunderland ; nor was it long before the coach was packed pretty full. It could not wait for the school-boys ; but of course they wouldn't mind a little wet ; so a message was left for them to follow. Two sharp showers fell as they drove along ; but there were bright bits of sunshine between, which were very nice ; and what was nicer still, when they reached Oaklands, there was the dear grandmamma watching at the window for them, and Aunt May at the hall door.

Nobody said, "How wet it is !" or "How shall we amuse ourselves ?" but there were lots of kisses and lots of talk about merry games while they were taking off bonnets and hats, and a particular message from Uncle Merton that, though he was very busy that morning, he would make a point of being at their service all the afternoon, which Mrs. Sunderland said "was very good of him."

The hour before dinner-time was hardly long enough to look over a variety of parcels on the

drawing-room table. First came a round one for Willy to open. That was found to contain a cloth ball of all sorts of bright colours; then came one for Bobby, round also, and inside was a magnificent india-rubber ball in a coloured case. There was a boy-doll and materials to make its clothes; baby might like that, and Agnes could dress it for him. There were also a musical cart for Francey; and a scrap-book and a pile of pictures ready to paste in it. Besides these, there were some new battledores and shuttlecocks fit for use in a room; some question-cards with counters belonging to them; several new books, and a little work-basket and blue silk to line it, besides a supply of needles and cottons to stock it when ready.

So sunshiny looks returned to the young faces; and while they were looking over their treasures, sunshine began to prevail out of doors. Then Archer and Teddy came, and soon after Uncle Merton, and they had a merry, noisy dinner; because as the children were out visiting, they were allowed to talk just as much as they liked; and nobody said "be quiet," except when Bobby put his elbows on the table, and grew rather warm in a dispute with Willy, as to whose ball was the most valuable.

Although it was fine after dinner, yet it was, of course, too wet to go on the grass; but as all had brought thick boots, there was nothing to prevent a

visit to all the pets, and afterwards they had a race round the gravel walk, until the little ones were quite tired, and preferred to go back to their games indoors. Then Teddy whispered to his sister :

“What’s become of your gossip, Agnes? Aren’t you thinking of giving it a squeeze?”

“Oh! Teddy, what a tease you are!” she said; “but never mind, tease away, I shall not care for it any more than uncle does.”

And off she ran, crying out :

“You had better take care, or else I shall have it all to myself.”

But Archer and Teddy had no mind that she should ; and before she could do anything they had seized on their uncle, and dragged him into his study, where they held him prisoner until their sister came in (for she had gone the wrong way in search of him), saying, “If you please, uncle, Agnes has got something to ask you.”

“Oh, you little torment!” exclaimed Mr. Merton, throwing himself into his arm-chair in a resigned sort of way. “You’ll wear my brains out, that you will ; so I give you warning. And now pray what profound question have you got to propose to-day?”

“I don’t know what profound means,” said Agnes laughing, and climbing on to his knee; “but it’s only a question that Cæsar told me to ask you—at least he put it into my head ; so it’s the same thing.”

"Hum!" returned her uncle, pretending to look somewhat relieved; "well, if that's the case, I have some small hopes that it may not be altogether beyond my powers of answering. But out with it. What is it?"

"Only about Nose-gate. We want you to tell us about that," said the little girl.

"A large question, truly," remarked her uncle.

"But," said the child laughing, "Archer says that Cæsar has got a better nose than I have. Is that true, uncle?"

"Well, as to the shape of it," replied Mr. Merton, holding up her chin, and examining her face carefully, "I can't say I agree with him, for I certainly think I like yours best."

"It would look rather queer on a dog though," observed Teddy drily; at which Archer grinned, and bid him be quiet.

"As to the use of it, and the power of it, I must confess, however, that your little Grecian affair won't bear comparison with Cæsar's."

"But, uncle," said Agnes, "I've been thinking that perhaps if my nose were as near the ground as his is, I might be able to smell better—at least, I mean those sorts of things that he smells."

She could hardly finish her speech on account of the roars of laughter which it provoked.

"Where would you like your nose to be, Aggy?"

said Teddy. "Will you have it cut off, and fixed on to the ends of your toes?"

"I didn't say, *I wanted* it to be anywhere else; it can smell everything I want to smell where it is," returned Agnes, a little vexed; "only I thought that might be one reason why Cæsar can smell better."

"No doubt it is one reason why, as you put it, Aggy, he can smell better the things that *he* wants to smell," replied her uncle, encouragingly; "but still if you were to go down on all fours, and we were to put you on the scent of a runaway negro slave, you would hardly be able to snuff him out."

"Can dogs do that?" said Teddy.

"Of course they can," said Archer. "Haven't you read plenty of horrid stories of how they catch the poor fellows, and keep them till their masters come up; but those are mostly bloodhounds."

"Yes; but other dogs scent out game, you know," said his uncle. "For instance, in a hunt, the dogs will first snuff out the scent of the deer, or fox, or hare, or whatever it may be, and then follow it out, until they find the game."

"What do you mean by the scent, uncle?" asked Agnes.

"I mean that they trace the course of the animal by the scent on the ground they have passed over; now could you do this, do you think?"

"No ; I shouldn't be able to smell anything," said Agnes, "not even if my nose were on the ground."

"Cæsar was snuffing about after something the other day when we took him out," said Teddy, "and that made Agnes so curious. I wonder what he smelt?"

"Oh ! I dare say a cat or a rabbit," answered Mr. Merton ; "there was one near, no doubt."

"Do other animals besides dogs have such keen scent?" asked Archer.

"I think the sense of smell is stronger in many of the brute creation than it is in us," he answered. "They want it more than we do ; because, you know, they have to get their living by it. And many of them hunt by night, when they cannot see their prey, and must be guided by the scent. Besides which, they don't have much education about what is good for them to eat and drink and what is not, you see ; and, therefore, as they might be often taking poisons, God has given them this quick smell."

"I thought they knew such things as those by instinct," said Archer.

"What is instinct?" asked Mr. Merton.

"It means, doesn't it, that way of knowing which they have without being taught," said Archer.

"Yes ; but then they arrive at this knowledge by some means, no doubt. They have likes and dislikes



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about tastes and smells, and so they avoid what would hurt them."

"But, uncle," said Agnes, "*how* do we smell?"

"By means of a particular kind of nerve, which is spread over the inside of the nostril, and certain passages which go out from the back of the nose, and eventually reach—what?" said Mr. Merton.

They all answered together:

"The brain, I suppose."

"Quite right," returned the uncle, "I am glad you understand that every sensation must be carried there before we can feel it. So this is the smelling nerve; it spreads about the surface of the nostril like the leafless branches of a tree; and there is more of it towards the back, and in the passages behind, than just at the entrance."

"I suppose it has got some other name besides the one you gave it just now?" said Archer. "Will you tell us what it is?"

"The *olfactory* nerve," said his uncle; "I once knew a gentleman whose olfactory nerve had been destroyed by a fever, and the consequence was that he could not smell."

"Oh! well," said Teddy, "I don't know that that would be such a bad thing; he would escape plenty of nasty smells,—for instance, that tan-yard that we pass in going to school."

"I shouldn't like not to smell the flowers, though," said Agnes.

"Nor the dinner when I'm hungry," added Archer, with emphasis.

"There is one thing that none of you have thought of," remarked Mr. Merton; "and I wonder at it. How do we get at these smells at all, and what are they? After all our scientific conversations, you won't tell me that you suppose a smell is a smell, and that's all you know about it. It must be something, and it must get at your noses."

"Yes; I suppose so," said Archer, "but I never thought of it before. Does anything come from the things that smell, and touch our noses, as the waves of light and the waves of sound touch our eyes and ears?"

"Yes, certainly; little particles of the things come off and float in the air, and so some touch our noses. In flowers there are little bags of scent which the wind disperses; in dead animals, decay is going on, which causes bad and unwholesome substances to go off from them; and so on. We needn't go through a long list of odours, but there are, you know, an immense variety. You see, however, that when we get out of reach of any odour, it is because we have got beyond the reach of these little floating particles."

"One is very glad to get out of the reach of some," remarked Archer, with a grimace expressive of disgust;

"I know I am always glad to get past that candle factory. Whew! What an odour there is near that!"

"But if you were on a voyage to India, you would not be sorry to get *within* reach of the cinnamon groves of Ceylon," observed his uncle; "and I have heard that at twenty miles out at sea they may be perceived."

"Oh! I like to smell the cinnamon," said Agnes; "but how dreadful it would be if one smelt a tan-yard, or a candle factory all that way off!"

"Ah!" said her uncle, "but bad smells generally do not extend so far, nor last so long, if the cause be removed, as sweet ones; and the reason is, that usually these pleasant and fragrant ones are caused by lighter particles, which rise higher from the ground. And this will show you, Miss Aggy, how good it is for us to have our noses as high up as they are. There are many bad smells which people perceive lying down and not standing up, because they hover close over the ground; and in some hot, damp climates, it is dangerous to sleep on the ground; but swung in a tree fifty feet high, it may be done safely."

"Why is it dangerous to sleep on the ground?" asked Agnes, in a tone of wonder.

"Because these heavy bad smells of all sorts of decaying things, do not only go into our noses, but

the unwholesome particles which cause them go down our throats and make us ill. Does this fact show you any use that our noses are to us?"

"Yes," said Archer; "because without them we shouldn't know where these poisonous things were. But, uncle," he went on, "do you advise us to educate our noses, as we should our ears and our eyes?"

"Educate our noses!" cried Teddy, laughing, "why our education will never be done if we are to educate everything!"

"And our education never will be done, as long as we are in this world," said Mr. Merton, seriously. "We ought to be learning something every day; for the more we know, the more good we shall have it in our power to do in the world. It is true that you would laugh at me if I were to advise you to set to work to improve your sense of smell; but there are some people who are obliged to do so. A chemist, for instance, can tell one poison from another by the smell, and many other things besides poisons, too. A wine merchant finds a quick smell useful to help him to judge of the qualities of his wines; and I am sure it would be a very good thing if cooks took more pains to get their noses into good order. If they did, we should not so often have high meat sent to table, or puddings spoilt by bad eggs."

Agnes laughed and said :

"Soon I am going to learn to make puddings ; so I must take care."

"Now," said her uncle, "I'm afraid this is rather a dry subject for you ; but as we have begun it, I want to ask a question in my turn. Who can tell me in what parts of the world people have been most fond of scents or perfumes ?"

"Mr. Middleton was telling us the other day that the ancients used them much more than the modern nations ; and he said that they used them in their worship as well as to scent themselves and their clothes ; but he didn't say in what part of the world," said Archer.

"Then I will tell you. They thought a great deal of them in Egypt, in Persia, in Greece, and in another country, of which you ought to know a great deal."

"What country can that be?" said all his young listeners, seeing that he meant them to find out.

"A country of which we have often read, I suppose," said Archer. "Oh ! I know. Of course you mean the land of Canaan. We were reading about that with papa last Sunday. The Israelites used incense a great deal ; and they had an altar of incense on which the priests burned some every day. It was made of different sweet-smelling things."

"Yes," said Teddy, not liking to be behind ; "and they had frankincense to mix with the sacrifices, and a

sweet-smelling oil besides to anoint the priests. And papa showed us how these particular mixtures were to be kept for holy purposes ; and don't you know, Archer, he said *that* told us that they liked sweet scents."

"I am glad you recollect your Bible lesson so well, and that it fits in so nicely with our lesson to-day," remarked their uncle. "Well, other nations besides the Jews used perfumes, both for their own pleasure and in the worship of their gods ; but the southern and eastern ones much more than those who live in the north and west."

"But, uncle," cried Agnes, "I've just thought of something. When I hold mamma's bottle of smelling salts to my nose, they seem almost to bite it, and they make the tears come out of my eyes. What is the reason of that?"

"Oh ! that is because at the lower part of the nostrils there is another nerve, besides the true smelling one, and this other can feel as well as smell."

"Well, I hope I shan't have a fever and lose my smelling nerve," said Agnes ; "for there are lots of things that I like to smell very much. I don't think I should care much to go into the garden if I couldn't smell the flowers ; and don't you remember, Archer, how delicious the sea smelt when we went to the sea-side last year?"

"Do you know," interposed her uncle, "that it is

not safe to eat or drink much of anything which has a *very* strong smell; so there is a good rule for you to guard you against poisons. If a flower smells as the poppy does, for instance, keep it out of baby's way; and *ask* about other things with a strong, peculiar smell before you taste them."

CHAPTER XI.

THE PRISONER'S LESSON ON TOUCH.

"I'M afraid your book is not very entertaining, my dear; or are the words so very hard to read in that page? It is ten minutes since you turned over the last, I think."

"Oh! uncle, I didn't know you were anywhere near," said Agnes, starting up from the low stool under the window, on which she had been sitting and fancying herself reading for the last half-hour; while her two brothers, at the same moment, sprang up from a cupboard where they had been busily engaged on some piece of carpentering for about the same space of time, crying:

"How in the world did you get in? We never heard you come!"

"That's the advantage of not having a creaking door to your playroom," returned their uncle, evidently enjoying their surprise. "You see I was so sure that you would not any of you be doing what you were

ashamed of, that I felt at liberty to come in on the sly, and study character."

The boys, however, protested, and declared that it was a great shame, and said that they did not approve of being studied in that way, and that he ought to give them notice when he wanted to do it. And Archer added :

"Detected spies may always be taken prisoners ; so, Mr. Uncle, we hold you our captive during the pleasure of her majesty, Queen Agnes."

"Hurrah !" shouted Teddy, "so we do."

And both boys instantly seized their victim, one on each side, crying as they did so :

"Now, Queen Agnes, what is your royal pleasure ?"

The little queen immediately brought out her stool into the middle of the room, where she seated herself on it with great dignity, and for a minute or so contented herself with shaking her golden curls, and nodding triumphantly at her prisoner.

"May it please your majesty, let me know my fate at once," pleaded the captive, in a mournful voice.

A great many chuckles were gulped down by the little sovereign ; but at length she said, with becoming dignity :

"My pleasure is, Mr. Uncle, that you shall stay here until you have given us another gossip."

Both the queen's officers, and likewise the prisoner

himself, uttered a variety of singular noises on hearing this royal decree; but her majesty, with the greatest composure, drew her little throne close to the culprit's feet, and put her head so dangerously near to him that some of her ringlets actually fell on his knees, as she said :

"That's my sentence; and now, Mr. Uncle, I am going to tell you what the gossip is to be about."

The temptation was too great to be resisted; and the daring prisoner actually laid his hand on the flowing locks. The elder officer was, however, on the watch, and instantly cried, in a stern voice :

"Hold, sirrah! Don't presume to touch the queen's curls."

On which the prisoner meekly begged pardon; and, with another curious chuckle, Queen Agnes said :

"We must begin the gossip at once, before the prisoner makes his escape. Mind you hold him fast, and don't let him go."

So the officers tightened their clutch, while the prisoner humbly inquired whether the gossip was to have anything to do with that interesting volume on the perusal of which her majesty had been so lately engaged.

At this the queen laughed outright, and said :

"Not much; only there was something in it that made me think about Alice; and then it came into my

head that now she can see she is better off than I am."

"How so?" said the prisoner, apparently somewhat emboldened by the queen's condescending manner.

"Because she can see as well very nearly, and hear and feel a great deal better than I can," was the answer.

"That looks as if when eye-gate was closed, ear-gate and feel-gate had to be opened a little wider," said the prisoner. "Maybe they've got stuck so now, and won't go back. Maybe, too, she doesn't want them to be shut any closer than they are."

"I don't think she does," replied the queen; "but I should like to have all my gates wide open too, and I don't know how. At least, I know a little about ear-gate; but as to feel-gate, I don't even know what it is; so, of course, I can't know how to open it."

"I am not sure about that," returned the prisoner; "but will her majesty graciously tell me what it was that she noticed about Miss Alice's ear-gate?"

"She doesn't like to be called 'Miss,' so please don't say that again, Mr. Uncle; and I'll tell you what you want to know about her ear-gate. It isn't any larger than other people's—rather smaller, if anything, I think—but when we walked down the road as quietly as three mice, it let in the sound, though there was only the least, little, tiny, wee bit of it; and so she knew we were coming. And when other people say,

‘What did you say?’ or, ‘I can’t hear you,’ she never does—she always hears. That’s because she educated her ears while she had no eyes that could be taught, I suppose. I couldn’t do it so well, I know; but then Alice is older than I am, and cleverer too, so I can see just a very little how she did that; but about the other I can’t make out, for I don’t even know where my feel-gate lives.”

“Gates don’t generally live at all,” muttered the younger officer.

On which the queen said, impatiently :

“Never mind, Teddy; you know what I mean.”

“The queen is somewhat forgetting the dignity of her position,” remarked the prisoner, with a sarcastic smile.

“Never mind my dignity, Mr. Uncle,” she replied, shaking his knees with her little hands; “but please tell me about feel-gate—*all* about it, I mean.”

“I was going to say that it is the widest of all the gates,” he answered; “but correctly speaking it is really not much like a gate at all. I think myself, certainly, that it is more like a *living* creature than a gate. Eye-gate just keeps open, and the light comes in; ear-gate keeps open, and the sound enters; so with nose-gate and the odours, and mouth-gate and the taste; but it isn’t so with the feel-gate, at least not with the principal part of it. I mean the ends of the fingers.”

"Ah!" cried queen Agnes, "that's where feel-gate lives, of course! How stupid of me not to know."

"But it doesn't only live there," cried the younger officer; "for instance, if I were to pull your hair, or pinch your shoulder, or scratch your cheeks, I suppose you would feel; wouldn't you?"

"A pretty way truly to speak to the queen!" exclaimed the prisoner indignantly.

"Oh!" cried Agnes, "I'm tired of being a queen; it makes such a fuss. I shall get on uncle's knee, and keep him prisoner that way; so, Archer and Teddy, you may as well let go."

Archer and Teddy did not, however, seem inclined to forego their dignity; and though they relaxed their hold a little, they remained still on guard behind their uncle's chair.

"Well, isn't feel-gate all over us?" persisted Teddy, after a minute.

"Certainly," replied his uncle; "at least the sensation of feeling belongs to every part of our bodies; but for all that, when people talk of the sense of touch, they think of those little members which we use when we want to feel anything. If you want to touch an *object*, you don't poke out your chin to do it with, nor your elbow; but your fingers go to it almost of their own accord. So they are the gate, no doubt."

"But tell us first, uncle," said Archer, "*why* we

have the sensation of feeling anywhere? I dare say it sounds a silly question, but for all that I couldn't answer it."

"What is really the feeling part about the eye, the ear, or the nose?" asked Mr. Merton. "I mean, what carries the sight, sound, and smell to the brain, which you remember is the seat of life?"

"Oh, the nerves," said both the boys at once.

"Well, there are nerves all over us," rejoined the uncle; "those little threads or cords, in which feeling lives, are spread all over our bodies, and are connected with the brain. I thought you understood this. The skin also has a good deal to do with it; but we cannot stay to talk about that. Only you must remember that under the skin lie these wonderful living threads, and that it is they which really carry the little message caused by every touch, or pinch, or scratch, up to *head quarters*; and so we *feel*. You know old Thompson, of Heathfield?"

"Yes," said Agnes; "he cannot use his right arm or hand ever since he was ill; and, uncle, he told me the other day that he had no feeling in them."

"That is because in the illness that he had, which is called paralysis, something happened to that part of his brain which the nerves from that right arm join, and now they won't act; they are like dead nerves."

"But what is the reason that the fingers can feel better than other parts of us?" asked Teddy.

"Do you mean *better*, or in a *different way*?" asked his uncle.

"Well, I don't know, I'm sure," said Teddy, carelessly; "only our fingers are made to feel about with, I suppose."

"I wanted to make out how much you had thought about what you are asking," returned Mr. Merton, smiling; "and I don't think that was much. For haven't you observed that there are parts of your body which feel *pain* a good deal more acutely than your fingers do? A prick in some parts would be much sharper than on the ends of your fingers."

"Yes; the ends of my fingers wouldn't feel a prick much, certainly," said Teddy, in a tone which seemed intended to show that he despised pain altogether.

"But suppose now that you were blind, and wanted to make out the size and shape of that trunk in the corner, you could get a tolerable notion by just feeling it; couldn't you?"

"Yes; I think I could."

"And you wouldn't try to make out with your feet or your mouth; would you?" continued his uncle.

Teddy laughed, and Archer said:

"But why is it that our hands can do so much better? Is it only because of their shape?"

"Not only on that account," said his uncle. "The tips of the fingers are very richly supplied with nerves. That is one thing, and it would make them very sensitive to pain, did not the skin get hardened by use. But besides that, the power which a hand possesses of judging of form, and of performing many of its duties, arises from the muscles with which it is supplied, as well as from the length of the fingers, the position of the thumb, and its general shape."

"I don't know what muscles are," said Agnes.

"What, have you forgotten," said her uncle, "what I once told you about them, and how without muscles you could neither walk nor stir nor move your arms nor open your eyes. Our muscles are just those curious things inside us which help us to do all these things. They are generally long things, and sometimes very strong things too, and they can draw up or contract themselves: so you draw up a leg, or lift up your arm; and then when you want to put them out straight again, another muscle pulls the other way. See, when you bend your fingers, that is what happens; and there are plenty of muscles in your hands."

"Oh, I see," said Archer; "so the muscles and the nerves are the great things. Well, our hands are wonderful machines, when you come to think of it, and very useful ones too."

"Yes," returned his uncle; "and if they are gates



at all, we must call them live ones, I think ; for they do as they like, and do not wait for the feeling to come to them, as the other senses do. They go after what they want ; and not only that, they help all the others."

"Yes," cried Agnes, jumping up and running to the piano, "my fingers can make sounds for my ears to hear ; they can pick flowers to smell, and take up food to eat, and hold things for my eyes to look at. Why, I think they are just like servants !"

"I hope they will be very industrious servants," answered her uncle rather seriously. "They were not meant to be idle ones, I am sure. And whatever you may think about educating your other senses, I do not think that the most careless little boy or girl could ever doubt that hands were meant to be used, and trained to be useful too. They may be clumsy and awkward, or they may learn to do all kinds of useful things—it depends on how you treat them ; but Alice has shown you what good servants they may become ; and though I hope none of you will ever be blind, yet I should like you all to try and serve their Maker with them as well as she seems to do."

CHAPTER XII.

ONE WAY OF GETTING RID OF A BLACK DOG.

"WELL, Archer, and what did uncle say? May we go for a walk with him to-morrow?" inquired Teddy and Agnes in a breath, as they met their brother at the house door, about a week after Mr. Merton's intrusion into their play-room.

"No," returned Archer, in a disappointed tone, "we mayn't; uncle has got to go somewhere by train to-morrow; the day after he and his deaf friend are going to see the architect about those stupid schools; and the day after that he means to shut himself up in his study all day long: so, you see, we shall want the patience of Job."

"What a bore!" said Teddy; "and, of course, it will rain on the day when we can go; so I don't suppose we shall ever see the lozenge manufactory at all."

Mrs. Sunderland looked up from her writing-desk as the children entered making these cheerful remarks, and said:

"Teddy! Teddy! I don't like to hear you speak in that way. You know the rain does not fall of its own will; and there is nothing to make you suppose it will rain at all just now. Papa thinks we shall have a continuance of fine weather. Besides, if you get cross about such little disappointments as these, how will you ever get through the world?"

"Oh! but, mamma," cried Agnes, "we are so very sorry that we can't go to-morrow. We made a plan about it a week ago; and it does seem so tiresome that uncle has got all those things to do!"

"A great many things that seem tiresome are good for us," replied her mamma gravely; "and as you grow older, you will have to learn that most people's plans are very often upset. Mine are, I know; and so are papa's; and therefore I don't know why our little girl should expect things to go differently with her."

Agnes coloured, and began to fidget with some books on the table, for she knew that her mamma thought she had spoken crossly; but Teddy pouted and said:

"It's very tiresome for all that! And after we had counted on it for a whole week, too! I don't believe grandmamma would have let us be disappointed."

"Do you think you *ought* to have counted on going for a whole week?" asked his mamma.

"Why shouldn't we?" said Teddy, gruffly.

His mother looked still more grave, and displeased as well now, and Archer indignantly exclaimed :

"If you speak to mamma in that manner, Ted, I'll ask Uncle Merton not to take you at all." And then he added frankly: "I was put out, too, about not going, mamma, and it was very ridiculous of me, because, of course, it can't be helped ; but I don't understand why we oughtn't to have made our plan a week ago?"

"I didn't say that you were wrong in making your plan; I said in counting on going. People of your ages are apt to do so very confidently, I know; but that is just why they get such bitter disappointments. None of us would have so many if we always remembered what the Bible says about making plans."

"The Bible!" repeated Archer, thoughtfully.

And Agnes said in a tone of surprise:

"I didn't know the Bible talked about plans at all."

"Fetch yours, and I will show you," replied her mother, smiling; and when the little girl brought it, she turned over the leaves till she came to these verses, which she bid her read:

"Go to now, ye that say, To-day or to-morrow we will go into such a city, and continue there a year, and buy and sell, and get gain:

"Whereas ye know not what shall be on the morrow. For what is your life? It is even a vapour

that appeareth for a little time, and then vanisheth away.

“‘For that ye ought to say, If the Lord will, we shall live, and do this, or that.’”

“Oh, yes! I remember those verses; they are in St. James’s Epistle, aren’t they?” said Archer.

“Yes; in the 4th chapter, and they begin at the 13th verse,” Agnes said; “but, mamma,” she added, “do they mean that we never ought to think about what’s going to happen next week at all?”

“I don’t think they *say* so, at any rate,” her mamma replied. “I understand them to teach us not to be too certain about anything, and always to remember that what we plan may not be God’s will for us. He may know that it may not be good for us, and may hinder us in all sorts of ways, as He has hindered you by letting your uncle arrange to do other things. Now, don’t you think if you had remembered that, after all, it was He who hindered you, you would have felt rather ashamed to say all those cross things that you did say?”

“Yes, mamma,” said Agnes, softly; “but even then I should not have been able to help being disappointed.”

“No, I dare say not,” replied her mamma; “if we did not *feel* our disappointments and troubles, little ones as well as big ones, they would not do us any good. God means us to feel them, no doubt; but it is

124 ONE WAY OF GETTING RID OF A BLACK DOG.

quite as certain that He does not mean us to feel cross about them ; and that makes a great difference."

"But it is hard to help it sometimes," remarked Teddy, in a low tone. He stopped, and then added : "Because we cannot see the use of things being put off."

"I can see one great use for you, Teddy," answered his mother. "That hasty, impatient temper of yours needs a great deal of discipline and training. It wants to have everything it desires, and just at the very time it wishes too ; and if it gets its own way, it will make you grow into a very cross and disagreeable man. So if you do not wish to grow up that sort of person, you must make use of all these little trials, and whenever one comes, say to your temper, ' Now, mind, God sends this ; and it is to teach you to be patient.' And then, Teddy, you know the next thing is to lift up your heart and ask for strength and grace to be so ; and if you do this, you will soon find the use of things being put off."

Nobody said anything in answer to this, or spoke at all for several minutes, then Archer called his little sister to go with him to the play-room ; and as soon as they were gone, Teddy went up to his mamma and whispered something which was only meant for her to hear ; but afterwards, in a coaxing tone, he said out loud :

"Mamma, when a person feels cross, is it a good thing to read a story?"

"It is a very good thing to try anything which will drive the cross thoughts away," said Mrs. Sunderland, unable to suppress a smile; "at least, provided the thing which you try is a right thing. But why did you ask the question?"

"Because, mamma," said Teddy, "once you promised to lend me a book about animals, and I thought, perhaps, if you would lend it me this afternoon, I should get rid of the black dog off my shoulder all the quicker for it."

"That would be a good result, certainly," said his mamma, laughing, "I will see if I can find it;" and so she left the room and soon returned with the desired volume, which Teddy received with great glee, and with which he followed his brother and sister.

They were both busy over some small piece of carpentering, and did not notice his entrance until various grunts peculiar to himself, and one or two quiet giggles, announced that he was enjoying something very good.

"Hullo! what's that you've got there? Come, I say, old fellow, you may as well read out," said Archer.

"I'm not reading," answered Teddy, with a peculiar sort of chuckle; "I'm only collecting facts for Uncle Merton's benefit. Oh! shan't I have lots of questions to ask him next time I get hold of him!"

"What *do* you mean?" said Archer, jumping up and looking over his shoulder. "A natural history book! What has he got to do with that?"

And Agnes cried:

"Oh! what a queer creature. Is it a fish or a bird?"

"A fish!" repeated Teddy—"who ever saw a fish with a beak?"

"It's as much like an animal as either of them," remarked Archer. "Look how it stands upon its hind paws, and lets its arms hang down!"

"Paws!" screamed Teddy. "What next? Why, it's a King Penguin? Don't you know there are lots of those birds out on some of the islands of the Pacific Ocean, and they can live either in the water or on the land?"

"I *said* it was something like a fish," cried Agnes; "and, if it goes into the water, I suppose it uses that queer thing that hangs dangling by its side instead of a fin; doesn't it?"

"Yes; this book says it can't fly, but that when the bird marches into the water, its wings, which have no feathers, help it to turn about and dive for its food. It says that some islands where no people live are covered with them, and that they live in regular camps, and march about in companies like soldiers on parade, and that when some people went to catch them they

ran with their mouths open to attack their enemies. It must be good fun to see them feeding their young ones; for look, this is how they do it. The old bird gets on a little hill, and begins making a loud noise, between the quacking of a duck and the braying of a donkey, something like this, I suppose"—and Teddy mounted on a stool, and began making a series of extraordinary sounds—"then the young one comes close up, and stands just under it, till the old bird puts down her head and opens her mouth wide, when the little one pokes its head in and sucks away at its mother's throat till it has fished the food out. *Just* imagine! Oh! shouldn't I like to see them!" and Teddy burst into a fit of laughter. "I must go and see some of these queer creatures when I'm grown up. I think I shall be a sailor."

Then he read on till he came to something else that excited another chuckle, and Archer inquired if he were going to turn into a penguin himself.

"No," said Teddy; "but here's a story of a fight with one. A gentleman wanted to catch him, I suppose; but the creature fought him till they came to the sea. It went after him like a man, and followed him close, standing bolt upright and looking as determined as it could, only it kept rolling its head from side to side in an extraordinary way. I should like to have had a fight with that bird—that I should! Ah! here

it says that sometimes he saw them swimming far out at sea as fast as any fishes, and at other times going up cliffs on all fours just like monkeys."

"Then they *are* something like animals—I *said* they were," cried Archer. "But what in the world have they to do with Uncle Merton?"

"Oh! nothing particular, these creatures haven't," said Teddy; "but you know one day he told us to find out all we could about the senses of different animals: which of them are quick-sighted, and which have sharp ears or good noses, and things like that; so I got mamma to lend me this book, for that, for one reason."

"And what were the other reasons?" inquired Agnes.

"Oh! never mind," returned Teddy. "I told mamma; and that's enough."

"Well, tell us if you have found anything for uncle in it, at any rate," said Archer.

"Yes; here's something about moles to suit him exactly, I think. How do they live? Do you know, Aggy?"

"Yes; uncle's gardener told me about them one day," she replied; "and he said that they live underground, and make those funny hills that we see sometimes; and that they don't do as much harm to the ground as some people think, but a great deal of good sometimes; and yet people catch them and kill them every year by thousands and thousands."





"Dear me!" said Teddy, "I didn't know you were so learned! Well, do you know any more about them?"

"No; that's all. Tell me what the book says," she answered, eagerly. "I saw one once, and it was very pretty."

"Its mouth is called a muzzle," replied Teddy, "and its fore-feet are called hands. It digs with them, of course; but its muzzle and its tail act as feel-gates, as well as its hands. That's one thing for uncle, you see. Then it can hardly see at all, for its eyes are hidden in the fur; and of course, if it could see well, it would be of no use underground; but its ears are very, very quick, though there are none to be seen, only the drum is very large. And it has a very good smell and taste too. Then here's something uncle won't care about, but I do. Its breast-bone is like a ploughshare—sharp, you know, so as to cut the ground—and the hair is soft like silk. Now, what do you think is the use of its feel-gates, Miss Aggy?"

"I suppose to let it know when its friends are coming near, because it can't see them," she answered.

"Ah, and its enemies too," returned Teddy, wisely; "and some of them live overhead, you know."

"I should like to see into their houses," remarked Agnes; "but I suppose nobody can."

"I don't know about that," said Teddy. "At any

rate, some people have found out that they dig out rooms for themselves, and long passages, and that when there isn't a pond near they sink wells for themselves."

"How clever of them!" cried Agnes.

"They have a large round gallery under a sort of dome, the sides of which they beat hard and firm, and another gallery above, with five passages to join the two together. Then there is the sleeping-room. Only think of that, Aggy! two sitting-rooms and a bed-room for Mr. Mole and his family; and outside are the high road and the hunting grounds. Aren't they grand people? They can fight, too, something like, for if two meet in a road, unless one gets out of the way they fight till the weakest one is killed."

"Well, all that is not what uncle wants. Have you found out anything else?" asked Archer.

"Yes; here's something about bats," answered Teddy. "They seem to have a queer sort of feel-gate in their wings; for they can feel at a little distance from things without quite touching them; so that people say, however close they fly to your face they never touch you."

"Go on; anything else?"

"Well, there are hawks, they are very quick-sighted, of course; and cats can see best in the dark. I've remembered those things. Can't you think of anything for him?"

"Owls," said Archer, "they can see better in the dark too; so I suppose there must be something peculiar in their eyes; and Thompson says that their hearing is very quick, and that they listen as well as watch for their prey."

"And then there are the fishes," cried Agnes, "what queer eyes they must have when they can see in the water."

"They are very round eyes, you know," said Archer, "and come a good way out of their heads. Uncle told me one day that they are very like the eyes of short-sighted people."

"Well, we've got plenty to tell him about the senses of animals, I think," said Teddy. "He won't call us lazy, at any rate; and perhaps he'll explain some of these peculiar things to us. At any rate, I'm going to read some of the stories in this book to myself now; and I can tell you there is grand fun in it."

CHAPTER XIII.

A TERRIBLE TROUBLE.

AT length a day was fixed for the expedition with Uncle Merton; and when it came, and the grey morning gradually brightened into splendid autumn weather, our young friends grew very lively and joyous; and immediately after breakfast they began to make preparations for their walk.

And soon the three set off, accompanied by Cæsar, having first promised their mamma that they would be home before dark; and in less than an hour they reached Oaklands, and prepared, as usual, as they approached the gardener's lodge, to defend the renowned Cæsar against the malicious attacks of an ugly white cur, which invariably rushed out to oppose the entrance of all comers, and especially of those that belonged to the canine species.

Much to their surprise, however, not the faintest whisper of a bark was to be heard; nor when they rang the bell did any one come out to open the gate for

them. The lodge seemed deserted, but when they tried it the gate was found to be unlocked. They opened it accordingly, and walked quickly up the gravel path ; all, and especially Teddy, being on the look-out for the dear face at the window, that was generally on the watch when they were expected.

But no one was there now, nor was any one to be seen about the house, until just as they were within a few steps from the door, some one hastily lifted a blind, made a sign to them, and disappeared.

"We needn't knock or ring," said Archer, "for some one is coming. I think that was Aunt May who peeped out."

And almost immediately the door was softly opened by Aunt May herself.

They were going to spring forward to meet her as they always did, and, with a noisy greeting, to rush in to their grandmamma. But one glance at her face was enough to stop them. It was pale, sad, and weary, as if she had been up all night. They saw in a moment that something was the matter, even before she said :

"Hush ! come in very softly, for dear grandmamma has been ill all night, and she has only just fallen asleep ; we would have sent to stop you, but there was no one to spare."

Once more, then, the expedition was stopped ; but this time no one grumbled, indeed, they scarcely spoke ;

for boys do not often know what to say in such cases, and Agnes was too young to understand much about illness; but when Aunt May said: "I have had no breakfast yet; will you sit down and have some more with me?" they all silently drew their chairs to the table; and Archer soon found that he could do a great deal for his aunt, and that she needed persuasion to induce her to eat. To please him she made an effort; but as soon as she began to sip her tea, the tears fell, the cup was set down again, she leaned back in her seat, and buried her face in her handkerchief. Then little Agnes slipped off her chair, and got on her aunt's lap, saying:

"Don't cry, auntie; dear granny will soon be better, won't she?"—sobbing all the while as she spoke, out of sympathy.

But Teddy sat quite still and silent, though he looked paler than perhaps he had ever looked before, and seemed breathlessly to wait for his aunt's answer.

None came, however; and after a few minutes Archer said:

"Where is uncle, auntie?"

He was sitting with his mother while his sister had come down to rest. The doctor had been not long ago, and since that the poor invalid had fallen into a dose.

Archer made this out after a while, and then he asked:

"What did the doctor say?"

Aunt May only shook her head; and the children looked at each other in alarm. In another minute Teddy and Agnes were both sobbing violently, and Aunt May had quite given way. Then Archer seemed suddenly to grow older. He saw that this would never do, and that the first thing was to get his brother and sister out of the house, and send them home with a message. But not wishing to frighten his mother more than necessary, he made them stay in the garden while he went in search of an old servant, who was sure to know all about it. A good cry, he wisely thought, might do his aunt good; so he left her alone while he found out Mason. She was in her mistress's room, and he had to wait some time on the stairs for her. But when she came out, she did her best to cheer him.

"Poor Miss Merton was quite took by surprise," she said, "and regularly upset. The doctor did not give up hope at all. Sleep was the best thing for the dear mistress, and she was having it now, thank the Lord. Only everybody must keep quiet and calm-like. She musn't be worried on no account."

"Can I be of any use, Mason?" asked Archer, anxiously.

"That you can, young master, if you can only keep up a heart, and put a little into your aunt. Don't you be going off yet, if you feel as how you can be brave;

go and see to the young missis, till she feels better like ; and then she'll be ready when the poor lady wakes and wants her."

Archer waited for no more. He was downstairs in a minute, charging the others to be quiet, and not to go and frighten his mother out of her wits. But Teddy could not be quieted. He doted on his grand-mamma, and was in such trouble that even little Agnes had stopped her own tears to try and comfort him.

"He will have it that it's all his fault," she said, as Archer joined them.

"What do you mean, Ted?" asked his brother.

"Oh, it's all because I made such a fuss about not going before. I know it is," he sobbed, passionately. "And she's dying now, I know she is. That's why aunt wouldn't answer."

"Mason doesn't think she's so bad as aunt does," answered Archer, firmly ; "and she says if we want her to get well, we *must* keep her quiet ; so leave off now, Ted, this minute, I tell you, and don't go home and upset mamma before she comes, or else she'll upset grandmamma."

Archer appeared to his brother as if he had suddenly grown into a man ; and his determined manner took the desired effect on Teddy. With a desperate effort he choked down his sobs and dried his tears ; and then,

taking Agnes by the hand, he said : " Are you going to stay then ? "

" Yes," said Archer, decidedly, " there's no one else to look after Aunt May ; but somehow or other you shall hear in the evening. So now be off with you, and take care of Aggy."

So the two young ones set off homewards, and Archer went back to his aunt. He was bent on getting her better before his mother came, and was glad to find her trying to recover herself. So he lost no time in coaxing her to take food, and then to lie down. Archer being the eldest in the family had been used sometimes to be daughter as well as son to his mamma ; and he was a very good nurse. To his great relief his Aunt May soon fell into a dose, which, though a troubled one, he knew would refresh her ; and by the time Mrs. Sunderland arrived, she was quite self-possessed and calm.

The sisters went together to the sick-room, and found their beloved mother again in a slumber. Mason said she " doubted but this was partly the medicine ; but anyhow it was a good thing, for it kept the pain quiet. In the night it had been so dreadful that it must soon have wore her out, poor lady ! but all the time it could be kept off was in her favour, the doctor had said."

So the day was spent amidst hopes and fears ; and Archer stayed, quietly trying to make himself of use,

first to one and then to another, until evening came, and he was sent home to carry the day's report.

In this way six anxious days passed, and even in the little Sunderlands' nursery, there were many floods of tears ; for dear granny was loved by every one who knew her, as few people have been loved.

Of course, for the greater part of the day the little ones were merry enough, and thought only of their play ; but Teddy had told them that most likely grand-mamma was going to die ; so every now and then they remembered where mamma was, and why she was away, and then came the sorrowful fits which nurse always tried to quiet, because she said they were so bad for little children. As for Agnes and Teddy, they could seldom forget, young as they were, because so many missing pleasures kept them in mind of the great family sorrow. And never in all their lives before had they had so many serious and solemn thoughts, which they now and then told to each other, but oftener kept locked up in their own young breasts.

At length, however, more cheering news came. Archer's face told it, as he ran up the garden, before he spoke a word. The bad symptoms were all gone. Grandmamma had passed a quiet night ; and the doctor had just said that the danger was over, only she was very weak, and it would be some time before she was quite strong again.

Though they hardly knew what all this meant, yet even the little ones understood it was something to be glad about ; and a general clapping of hands, and kissing of Francis and the baby followed the announcements ; which were renewed on the proclamation, made in a louder voice, that mamma was coming home that very afternoon to see her chicks.

It had been during the Michaelmas holidays that the old lady had been taken ill ; but school was to begin again on the morrow ; and Archer and Teddy could now go back to work with light hearts. Hope is as good as certainty to people of their age ; nor was it, at this time, doomed to disappointment. They were allowed to walk over and see their grandmamma on their very first half-holiday ; and after that she gradually improved.

CHAPTER XIV.

A TALK ABOUT GRANDMAMMA.

"OH! oh! Now that isn't fair! is it, uncle?" cried Teddy, as he came in last of the three in a hoop race, which had been well kept up to the end. "Here's Agnes, two years younger than I am, and yet she has beaten me! Isn't it a shame!" and he laughingly held up his fist in a threatening attitude towards his sister.

"A great shame for you, certainly, young man, to allow yourself to be beaten by a lady," returned his uncle; "but, however, Agnes always was famous for her fleetness of foot, wasn't she? and, dear me! why she looks about twenty years younger this morning than she did this day last week, I think."

"I'm not always in a fright now, uncle," said the little girl, laughing at the idea of twenty years, and pushing back her somewhat straightened curls from her rosy cheeks. "Oh, isn't it dreadful to be as we were all the time grandmamma was ill?"

"I should just think it is," rejoined Teddy, with a

very boyish sigh of relief. "It makes one feel as if one couldn't breathe. But she'll get well now, won't she?" and he rubbed his hands in sign of satisfaction.

"Uncle," interrupted Agnes, "didn't you often wonder when you looked at grandmamma, just when she was so very bad?"

"Wonder at what?" asked Mr. Merton.

"Oh! I mean because she was always just as she is at other times,—not a bit frightened I mean; and her face always looked so quiet and nice when I peeped in, even when we thought she was going to die. I couldn't make it out."

"And I am sure I couldn't," said Teddy, emphatically.

"Why not?"

"Oh! I should be miserable if I were like that, I know," said Teddy; "and besides, she thought she was going to leave all of us,—and yet she's very fond of us, too, I'm sure," he added.

"Yes; particularly fond of every one belonging to her," remarked his uncle earnestly.

"And yet she didn't seem to mind leaving us all *one bit*," returned Teddy, as if he felt quite hurt.

"I wouldn't say that," replied his uncle, "for there were tears in her eyes more than once when she spoke of it."

Teddy looked surprised, and at the same time as if

he were glad to hear it; but he said no more, and would probably have followed his usual plan of keeping his strongest feelings to himself had it not been for his more open-hearted little sister, who said, as she slipped her hand into her uncle's and looked up in his face:

"Teddy and I used to talk about that, sometimes, but we never could make it out at all."

"Grandmamma *knows* more than you do," was Mr. Merton's answer.

"Yes; oh yes, uncle; of course she does," replied the little girl quickly; "but I don't see how knowing has anything to do with it."

Mr. Merton made no answer at first, and for a minute or two they all walked on in silence. Then he said:

"Yes; we have had two frights in a few months—haven't we?—the one about baby and the one about grandmamma——"

"And we thought at first, that the one about her was so much the worst," Teddy broke in, "because baby didn't know anything, and couldn't think about it, but she could."

"And was happy, notwithstanding," said Mr. Merton, smiling. "Yes; it is a very wonderful thing. No wonder that it puzzles you; and yet you must have often heard of people being calm and happy, even when they *were* dying."

"Yes," said Teddy; "and read of plenty; but I never thought about it till granny was ill. Why she thought she was going right away from every one whom she had ever known, and to a place she had never seen. And besides, if I had been in her place, I should have been afraid that after all perhaps, I mightn't go to heaven."

"Well, my dear boy," said his uncle kindly, "what you feel and think about these things is all very natural. I am not surprised at what you say at all: but, supposing you were in such circumstances as dear granny has been placed in,—how would you like to feel? As she did, or as you do now?"

"Oh! as she did," all three cried at once.

"And somehow or other you must all come to the same point; nay, you must go beyond it, for you must really die," continued Mr. Merton.

"Yes; some day," said Agnes.

"Archer," he said, without noticing her words, "do you remember how, a good while ago now, we came to the conclusion that all of us need a sort of wisdom beyond what will come in through any of these gates of which we have talked so much lately? I think it was in one of our conversations about the eye."

"Oh! yes; I remember," replied Archer. "It was that day when you told us how there are some fellows who call themselves clever men, and yet are

silly enough to believe that everything comes by chance,—anyhow,—makes itself, I suppose. They're called infidels, aren't they?"

"Yes; well, these people, however wise they may be in other things, have not got any of this wisdom of which I speak. There are some things,—very important things too,—of which they know nothing at all. But some of these things which they don't know, grandmamma does; because she has something which I have heard likened to a sixth sense,—something which seems to serve as another gate to let in knowledge. Who can tell me what this is?"

No one could tell, though they all thought for a considerable time; so at last their uncle said:

"The thing which I am thinking of is spoken about a great deal in the Bible, especially in the eleventh chapter of the Hebrews."

"Oh! faith—you mean faith," cried Archer and Teddy, at once.

"Yes; I do mean faith," their uncle said; "and can you tell me now why I said it seemed like a sixth sense?"

"No," answered the boys; while Agnes only listened and said nothing.

"Then think. Our senses are the means by which we get knowledge; aren't they? For instance, you know that I am here and a good deal about me because

you *see* me. You know I am speaking because you *hear* my voice, and so on ; but there are some things which we know that none of our five senses can teach us by themselves. If I ask you, 'Who made this world?' you tell me, 'God.' But how did you know that? You did not see Him make it!"

"I never thought of that," returned Archer, thoughtfully.

"The Bible says," continued Mr. Merton, "that we know that by *faith*. 'Through faith we understand that the worlds were framed by the word of God.' And there are many, many other things that we can only know in the same way because they are things out of sight."

"Uncle," said Agnes, "I don't think I quite know what faith is?"

"Do you not?" he replied, patting her uplifted cheek. "Well, a little while ago you knew nothing about your own eyes; and even when I had explained something about them, you must remember that I told you that after all no one knows what *sight* is. The rays of light go into the eye, and touch the optic nerve, which carries the impression up to the brain; but *why* that makes us see no man can tell. Still, you could see before I told you anything. And so it is with faith. I will try to explain as well as I can what it is; but yet remember, people may have faith who could not explain what it is at all."

"I never can quite understand what the first verse in that chapter about faith means," said Archer.

"When you do not understand a rule in your Latin grammar, what do you do?" asked his uncle.

"I always look at the examples," answered Archer.

"Here are your examples, then," said Mr. Merton, taking a little Testament out of his pocket, and turning to the chapter. "See, Abel, Enoch, Noah, Abraham, and all those good people who are called 'the elders,' in the 2nd verse, because they lived in the old times. You see these verses teach us that it was because they had faith that they were able to do all those great things for which they are famous. But instead of talking of any of them now, suppose we talk a little more about grandmamma, and see what faith has done for her. Did she ever tell you anything about her young days?"

"She told us once that her father and mother died when she was very young," said Teddy; "and that after that nobody seemed to care for her, until she knew grandpapa."

"And she told me once that often she used to be very miserable, and cry a great deal when she was by herself, and wish that her papa and mamma could come back to her," added Agnes, eagerly. "How dreadful it must have been to live with those cross cousins who took care of her!"

"Yes," rejoined their uncle; "poor granny had not

such a merry life as you young folks have when she was young; but yet, I think she found out the true way to be happy before she knew grandpapa; and it was one day when she was reading this chapter that she began to find it out."

"Oh! then that's why she is so fond of it," said Teddy. "She always says it is one of her favourite chapters."

"You must ask her to tell you all about it some day," said the uncle. "I remember her telling me about it when I was a little boy. It was one summer evening; and we were sitting together in the summer-house in the orchard, just when the apples were only tiny things, and the grass was sprinkled with the little blue speed-well; and there we had a talk that I have never forgotten. Some things she said about her sad young days, how lonely she was, and how she used to long for at least one friend, if only one. It was not much that she said about that; but her words just made my heart feel sore for her. Do you know how that is, Aggy?"

"Yes, uncle," said the little girl, decidedly. "Mine has been just like that twice."

"However," continued Mr. Merton, smiling, "the words she spoke afterwards were something like salve on a sore place; for they comforted me wonderfully about her. I recollect quite well how she talked of puzzling over that verse that puzzles Archer—'Faith is

the substance of things hoped for;' and how she thought to herself, 'What do *I* hope for?' Why, to be happier some day than I am now, and not to feel so lonely. I hope to have something to live for. Then 'substance,' why that is something substantial, I suppose; not anything that one can't get hold of, like air, or like a dream, but a real thing. But then if the things are only hoped for, and we haven't got them yet, how can we have the *substance*? And there she stuck for a long time, until she thought of looking at what came after. And one thing she said she noticed about all the good people that this eleventh chapter of the Hebrews speaks of; and that was, that they were all *looking forward*, and hoping, as she was, for better times. Only here came in a startling thought: 'I am hoping to have a pleasanter life *here*; but they, as the verse says, "desired a better country, that is a heavenly;" and they *died* in faith, too, expecting to be happier *afterwards*.' I don't know if I am repeating just her very words, but I think I am; for I remember that conversation so well."

"And did granny want to die after that?" asked Agnes, earnestly.

"Oh, no; I don't think so at all," said her uncle, "but she began to wonder very much what faith really is. You see she came to your point, Aggy, though she was much older than you are; and she began to say to

herself, 'I don't think I quite know what faith is.' So the next thing was to try and find out; and, having no one to help her, she was obliged to set to work all alone."

"Mamma always says that we should ask God to help us," said Agnes, quietly.

"Yes; but you see she had no good mamma to tell her anything; but, although she did not ask Him, there is no doubt that God did help her," replied Mr. Merton. "And how do you think she set to work?"

"I should find out all the places where faith is spoken of, if I had to do it," said Archer.

His uncle turned quickly, and looked at him. He had a way of doing this when for any particular reason he did not choose to take up a subject; and, as the children used to say, his looks often meant a great deal. So Archer understood, as well as words could have made him, that this look meant: "And have you no care to find this out?"

Judging by his countenance, the question went home, though, of course, he was not obliged to answer it; and Teddy, seeing that his uncle did not reply to his brother's words, asked, somewhat impatiently:

"What did she do, uncle?"

"Something like what Archer suggests," returned Mr. Merton; "and in her search she came upon what our Lord Jesus Christ said to Thomas, when he doubted

about his resurrection: 'Be not *faithless*, but *believing*.' That first showed her that to *have faith* and to *believe* must be the same thing. You have often been told so; but she had to find it out for herself: and mind, she really wanted to find this matter out; so she thought, and thought hard, about every text, which is a very different thing from looking up a string of verses because they happen to have one particular word in them. To believe—what is that? She thought a great deal about it. I wonder if you have ever done the same!"

"Sometimes I have," murmured little Agnes; and though the boys said nothing, there was something in their faces which said the same thing.

"But now and then will not do for anything that we want to master; and it will not answer here," said Mr. Merton. "You did not rest until you knew all that I could tell you about your eyes and ears; but, you see, the worst of it is, people do rest without understanding about faith."

"It seems so different," said Teddy. "We can see our eyes and our ears, but we can't see faith."

"That is quite true; and yet faith is very much like eyes to our minds. See what is said about Moses when he was in Egypt, and when he had great troubles because he would serve God: 'He endured as seeing Him who is invisible.' You can't see a thing that is invisible, can you, Aggy? And God is a spirit, and

cannot be seen by human eyes. Yet this verse says Moses saw Him—that is, he saw Him by faith. He believed in the one true God, and not in the idols of Egypt. He believed a great many things about God too; that He had made the world, and that it did not come by chance; that He was good and holy; that He had chosen the people of Israel to be his own people, and himself to be their leader. He even believed in Jesus Christ (though he could not have known all we do about Him), for it says that he esteemed the reproach of Christ greater riches than the treasures in Egypt; and so, you see, he endured, that is, he bore his troubles bravely, because he could look on to better times. Faith made Moses a *brave* man; and just in the same way it gave dear grandmamma courage when she was young. For when she had got to think about God as a real Being, and the next world as a real thing and not only a fancy; and when she had got to know that she was really a sinner, blind, poor, and miserable, and that Jesus Christ was a real Saviour; and that it was a happy thing to serve Him who had done so much for her,—then she found that she had one Friend, indeed, and something to live for. And thus she, too, endured—that is, bore her troubles bravely—because by faith she could see this invisible Friend. So she learnt always to go to Him in trouble, and proved Him to be a real Helper and Comforter; and so every day she

got to know Him better and better, until when she became so ill, and thought she was going to die, she could tell me that she felt as if she were going to an old friend, and that in a real friend's house she could never feel strange. So now you see what I mean by saying that grandmamma knows more than you do. She seems really to have "the substance of things hoped for." When once we believe, we begin to learn many things which we never could know without faith ; and then we go on learning year after year. St. Paul said, when he was an old man, 'I know in whom I have believed, and am persuaded that He is able to keep that which I have committed unto Him against that day.' I don't mean to say that any of you may not know your Saviour now ; only that the longer we try and prove a friend, the better we must get to know him."

CHAPTER XV.

THE VISIT TO A LOZENGE MANUFACTORY.

MASTER TEDDY SUNDERLAND had had more reasons than one for wishing so eagerly to see this said lozenge manufactory. There was, of course, as Archer drily stated, when once questioned as to the cause of his brother's deep and bitter disappointment at the postponement of the visit, "a laudable desire of acquiring information." This had its weight, no doubt; and, certainly, from his babyhood, he had been known to be of a curious disposition.

Then Teddy, who was somewhat jealous of the superior favour with which his elder brother was received in the nursery, had obtained from him a promise, that any sweets which might be brought home, should be distributed among the little ones by himself alone. And added to this, he had a little *protégé* in the gardener's child, a sickly boy, to whom he had promised a share of the expected feast, and whom he was really vexed to keep waiting so long for such an unusual treat. But,

over and above all these *public* reasons, he had, it must be confessed, a very strong *private* one, though he was not himself wholly aware of its strength. The truth was, that Master Teddy had himself a "very sweet tooth." What that is, my young readers, no doubt, know full well; and, at any rate, if they do not, I must leave them to inquire of their acquaintances, who will probably inform them what a longing the possession of this kind of article produces for anything like barley-sugar, sugar-candy, buttered-scotch, or toffy as it is sometimes called; as also for sugar-plums and lozenges of various agreeable flavours, such as are certain to be found in abundance in an establishment like that of Messrs. Brown and Co., in the large town of S—.

Many little circumstances, however, occurred, besides those already named, to postpone the visit from time to time; so that it really seemed to the children as if they never were to go at all. Nevertheless, to do them justice, I must say that these last disappointments were very patiently borne and submitted to; though by none of the three so patiently as by Teddy himself. For so convinced was he that his dear grandmother's illness had come as a punishment to him in particular, that he made a desperate resolution never to fly into a passion again as long as he lived,—a resolution which we must hope he will keep.

Privately, however, Teddy thought to himself that

during this long waiting-time, and in consequence of his many vexations, he had got to care very little whether he did ever go after all, and that he wouldn't much mind if he never saw how sweets were made; but I think this was a little mistake; for no sooner was he on his way with Archer and Agnes, and with Cæsar running by their side, than his tongue began to find out its use again. The stern gravity which he had assumed had to be dropped, the demure mood cast off, and Teddy's ringing voice was heard amidst the rocks and woods; so that it was well, for the credit of his family, that they were out in the country, and not walking through the streets of his native town.

At a previously-arranged spot the young trio were to meet their uncle; and for nearly a mile before they reached this rendezvous, their road skirted the grounds of a certain nobleman, but they were enclosed by a high paling, and only the tops of the trees could be seen; so this part of the walk was universally voted to be very dull, and the first signs of its termination were hailed with delight; while, somewhat to the distress of Agnes's legs, the two boys doubled their speed, declaring, as they did so, that Mr. Merton would be sure to be there before them. But for their own noisy tongues, they would have heard voices as they approached the corner round which they were to turn, passing separately through one of those swing doors which are so enclosed in a fence, as only to open

a little way backwards and forwards, and which admits but one person at a time. But when all had passed this, it was with some disappointment that their eyes scanned the fields beyond ; for as far as they could see, there was not a sign of any living creature.

"I can't make it out," said Archer, at length, "uncle is always to a minute when he makes an engagement, and I believe we are late too. Now he can't be here for a quarter of an hour, at least ; it takes quite that to walk up the hill and over these fields, I know, and we can see every step of the way."

"But you can't see behind you, or through these thick trunks," cried Alice, springing out from some trees in the corner, behind which she had concealed herself, and instantly followed by Mr. Merton, in whose eyes there was a mischievous twinkle of pleasure at the start of surprise with which they were received.

"Oh, uncle !" exclaimed Agnes, "how you did frighten me ! I thought it was an owl when I heard that scraping against the wall ; and, besides, I didn't think anything bigger could squeeze into that little crack."

"An owl !" shouted Teddy, with a peal of merry laughter. "Oh ! uncle doesn't look half wise enough for an owl to-day. He looks as if he had got some fun in him, which owls never have, I believe."

"Thank you, Master Teddy," replied his uncle,

with a profound bow ; " I shall remember that compliment when you come to me next time for a lecture, or, as Aggy calls it, a gossip. So, I'm not as wise as an owl ! That's it, is it ? "

" Now, uncle, you know what Teddy means," said Agnes, coaxingly, " and you are not going to put off our lecture for that, I'm sure. We meant to have one this very afternoon, you know. "

" Did you, indeed, little wheedler ? " returned Mr. Merton. " But then, you know, you shouldn't have called me an owl. "

" I *didn't* call you an owl ! " protested the child emphatically. " Now, uncle, you know I didn't. "

" Never mind, Ag," interposed Archer, quietly. " Owl or no owl, we are going to have our lecture ; uncle knows that well enough ; so come along with you ; this is the way to the train. "

And off he posted, followed by his three young companions.

" But you never told us how you came to come," he said to Alice as they hurried along.

" Mr. Merton came and fetched me, and I had to get ready in three minutes ; that's all I know," she answered ; " but I was so glad about it that your uncle said that I walked a great deal too fast for his old legs. "

" He's got plenty of fun in him to-day, any one can see ; and that's all right," returned Archer, as he care-

fully assisted first Alice and then Agnes over a stile. "There's Ted gone back to walk with him, dutiful boy that he is! but I can't think why they lag behind as they do."

As he spoke they came in sight of the railway station, and a bell was heard which quickly brought the two loiterers up to them. Fortunately it was not for their train; but there was only time to get their tickets comfortably before that came up, and soon they were all whirled away on their journey to S——.

It was not a long ride; only rather more than an hour passed, and they were at their destination. Then, as Messrs. Brown were well known to Mr. Merton, they proceeded first to their private house to learn the way to the manufactory; and then, accompanied by a young Brown of some ten or twelve years old, they made for it through wide and narrow streets, which were here and there so crowded that Agnes, who had never seen a large city before, at least not since she could remember, thought that something unusual must be going on, and asked if they had not better wait until the crowd had passed by.

The three boys were posting on in front, and so were fortunately not near enough to hear and laugh at this innocent question; and Mr. Merton never laughed so as to make his little niece feel that she had said a foolish thing; while Cæsar was too busy taking care of

his young ladies to feel anything but very grave. He seemed quite to comprehend that they were country birds, and very much in danger of being run over.

"I was going to say, 'Take care you don't make Cæsar laugh at you,'" observed Uncle Merton, after he had explained to his little niece the difference between a small country town and this busy, bustling place; "but I see he is too much occupied to think of such a thing."

"He never does think of such a thing," replied Agnes, indignantly. "Cæsar never was so rude in all his life."

"Oh, never," returned her uncle, with a grave shake of the head; "not even when he stole a nice hot roast loin of mutton off the dinner table, and jumped out of window with it, thinking to have a grand feast all by himself in the garden."

"Now, uncle, you shouldn't," cried the little girl, reproachfully; "you know you always tell *us* that we shouldn't talk about people's faults. Besides, poor Cæsar didn't know any better."

"Oh! didn't he!" returned Uncle Merton. "Then why does he look so ashamed of himself just now? and why does he happen to be walking with his tail between his legs? I should say that he did know very well that he oughtn't to steal, and doesn't one bit deserve the excuses you are making for him."

"Poor old Cæsar!" cried Agnes, patting him. "You won't do so any more; will you, Cæsar?"

On which the said penitent dog ventured first to lick her hand, and then that of Mr. Merton; after which the latter also patted him, and said something which seemed to restore his spirits; so that his young mistress pronounced him the cleverest dog in the world, and was sure that he understood every word that was said.

A shout from the boys here announced their arrival at their destination; and young Master Brown was soon escorting them in triumph over his father's 'sweet domain.' They went into hot rooms with furnaces, where sugar and other substances were melting; into cool rooms, where immense blocks of sugar were piled up, or where there were vast supplies of chocolate, gelatine, or liquorice, in various stages of preparation; and then they were marched on into another, where enormous sticks of barley-sugar made poor Teddy's mouth water. But the most delightful rooms were those in which lozenges of all shapes and colours were being cut out of the flat sheets of paste, which appeared again and again through an opening in the wall, as fast as their predecessors were chopped up.

And here every one was pressed to taste and take as much as they pleased. It is needless to say that this invitation was accepted as heartily as it was given, the



only doubt being how much room be left in the pockets for good things yet to be seen. Both the Messrs. Brown were occupied, and could only spare time for a hasty welcome; but they deputed one of their most sensible workmen to go round with the visitors, and explain everything to them. And thus the young party returned home crammed full of knowledge, and most eager to show that they knew now where liquorice came from; whence the best and cheapest sugars may be obtained; how the juices are pressed out of the plants; what coloured flowers these bore; and so on. It was later than they expected it would be when they got home; nevertheless Archer said:

"Now, uncle, we are not going to let you off. The school-room is quite in order, and mamma won't be in till tea-time; so we shall have time for our lesson on Mouth-gate. You *must* give it, you know, because you never can expect to have such attentive listeners again."

"In spite of my not being so wise as an owl?" remarked Mr. Merton, who all day had certainly made good Archer's words that he had plenty of fun in him, but now protested that he was quite knocked up.

"Yes," said Archer, positively. "I dare say the wisdom will come as soon as it is called; and Alice will have the benefit of it to-day as well as ourselves."

For Alice had come back with them to pay a visit

162 THE VISIT TO A LOZENGE MANUFACTORY.

of some length—her mother having been called away from home; and Mr. Merton had communicated this delightful intelligence as they walked from the train. Agnes wondered how he could have kept it to himself so long.

CHAPTER XVI.

MOUTH-GATE.

So they went and ensconced themselves in the school-room, where they always took refuge when anything was to be done which it was not desirable should be interrupted in the middle.

"But what about the sweets for the nursery?" asked Uncle Merton. "Isn't it rather unkind to keep the little ones waiting so long?"

"Oh! some of them are in bed already," answered Archer; "besides, none of them know what Ted has got for them, so the feast is to come off to-morrow."

"And aren't you all *sick* of the subject? *I* should hate to talk about taste of any kind if I had eaten as many sugar-plums as you have."

"I didn't have many," said Alice, "for I don't much like sweet things."

"Well, Teddy, then—what does he say?"

"Oh! he's never tired of them, uncle," cried Archer.

"You never saw such a fellow as he is for sweets; he never can get enough sugar in his tea."

"Takes after me, I suppose," returned Mr. Merton, laughing. "I used to be uncommonly fond of such things when I was a boy; but, fortunately, people do not want so many sugar-plums when they get old. I don't like them much now. Perhaps the taste flew away in company with my wisdom!"

"Now, uncle!" said Agnes again; while Archer cleared his throat impatiently, as much as to say, "We've had enough of trifling—let's get to business."

Which his uncle perceiving, remarked, with a peculiar twinkle in his eye:

"Well, why don't you begin pumping, and see what you can get up from the wisdom well here?"

Alice and Agnes laughed, and said that they did not see any pump-handle; but Archer took the hint at once, and set to work with a will, putting such a volley of questions that Mr. Merton soon cried out:

"Hold! hold! that's enough—you'll break the pump if you don't mind. Come, one question at once. You suppose there must be nerves in your tongues; do you? Well, so there are; but how are the sweets, and sours, and bitters to get at them? Can you guess that? There's a hole in your eye, and an opening in your ear, and you *press* the nerves in your finger-ends when you want to feel——"

"But we don't press the nerves in our noses when we want to smell," interrupted Archer.

"True; you have me there," answered his uncle. "Well, the nerves of taste are most like those in this respect; only I want you to guess where we should look for them."

"In our tongues, I suppose," said Teddy; "though I can't see them, I must say; and I looked in the glass when I came in."

"Yes, in our tongues, certainly; but on the top, or underneath? and at the tip or at the back of the mouth?"

"I'm sure I don't know," said Archer; "but I shouldn't fancy there are many underneath. We don't seem to taste much when things get under our tongues."

"But if you put the very tip of your tongue to any eatable substance you can taste it, can't you?"

"Yes; so there must be nerves at the tip," said Agnes; "and if I put a pill into the very back of my mouth I always taste it," she added, "and then the taste seems to come from the top of my mouth."

"From the roof, or palate, as we should say," said her uncle; "and so you guess, of course, that there are nerves of taste in that—that is to say, in the soft part at the back. But still we haven't got any answer to my question, How these nerves are got at?"

"I wonder if those little rough dots, which are just like tiny pimples all over the tongue, have anything to do with it," said Archer.

"Ah! now you are getting very hot—take care!" exclaimed Mr. Merton.

"Oh! I am not afraid," he answered. "I don't mind if I do burn myself, so long as I find out."

"Oh! you greedy creature," exclaimed Teddy, giving his brother a poke. "He will even burn himself, you see, uncle, rather than not gratify his taste!"

"These dots are called *papillæ*," said Mr. Merton, "and they are of three different sizes, the largest being placed at the back of the mouth, in the shape of a V, and the other two sizes all over the tongue. Now these little things are all very sensitive, and they are made up of tiny vessels. The ends of the fine white nerves come into these dots, and here they get at the taste of whatever is put into the mouth; and then they take it—where?"

"Up to the brain, I suppose," replied Archer; "everything seems to go there."

"Yes, up to the seat of life," answered Mr. Merton; "and so you see, if anything happens to that, or to any part of it, a person's taste is very likely to be spoiled. But the *papillæ* are only part of a sort of membrane, or fine skin, which covers the stomach; and, if the stomach is out of order, in consequence of eating

too much of anything—sweets, for instance—then this membrane feels it ; and so in this way the taste is often spoilt too. Therefore, take care, Ted ; for if you give your stomach too many goodies to digest, it will serve you out, and teach you a lesson by not letting you have any pleasure in them.”

Teddy laughed, but got very red at the same time, and, in order to turn the subject, he said :

“ I wonder why we taste anything ! I suppose the food would keep us alive if we hadn’t any taste.”

“ But you see God gives us pleasure in the use of all our senses,” answered his uncle. “ He might have made us more like mere machines, no doubt ; but He has not chosen to do that. He is good and kind to all his creatures, and has made them to be happy and to have enjoyment in their lives. See, how intensely happy that cat is over her saucer of milk ; and I don’t know that little Francis will enjoy his breakfast to-morrow morning much less ; while the sweets, as you know, are to send all the little ones into ecstasies. Now, just think how good it was of our Creator to make our bodies so capable of pleasure, even in the matter of eating and drinking.”

Archer here looked up suddenly, as if he could hardly believe that his clever uncle would talk of the pleasure of eating and drinking.

His uncle understood the look, and smiling, said :

"Yes, Archer, we never need be ashamed of any taste which God has given us. We only need to be ashamed of abusing that taste by putting it to a wrong use. I should be sorry to say that my chief pleasure lay in eating and drinking; and I should be ashamed to confess that I ate or drank too much, or that I could not refrain from eating or drinking what I knew to be bad for me; but I am not at all ashamed to confess that I have great enjoyment in my dinner when I am hungry."

These remarks seemed quite a relief to Teddy's mind, and his face got back its usual open and ingenuous expression as he laughingly said:

"Well, I'm glad that you think it's no disgrace to be fond of sweet things; for I certainly do like them, and that's the truth."

Archer turned towards him with one of his inimitable grimaces, and then remarked:

"But, uncle, I suppose there is a use in taste as well as a pleasure, isn't there?"

"Of course; how otherwise would the brute creation know their own peculiar kind of food? Each animal, in its wild state, takes by preference the kind which is good for it, and, as a rule, will eat no other kind. When they become domesticated, and do not need to be their own housekeepers, their tastes seem to lose some of this guiding power; for we know that cats, dogs, and

parrots will often eat food that is bad for them, if they can get it ; but then, you see, the instinct is not so much needed. Human beings, however, are not guided by instinct, but by reason ; and therefore remember, Ted, my boy, that your taste is not an infallible guide."

"What does infallible mean?" asked Agnes, who had been listening with great interest all this time, and seemed rather afraid that they were forgetting her when long words were introduced.

"I should have said that our taste is not a guide which we can altogether depend on," said her uncle ; "and what I meant was just this. Generally speaking, those sorts of food which we relish are good for us ; but not always. For instance, grandmamma is very fond of cheese ; but cheese is not good for her ; for it always gives her a pain in her chest. Therefore, you see, her taste does not serve as a guide here ; she is obliged to be guided by her reason, which says : 'You know by experience that it will make you ill, so you must not eat it.'"

"And fruit makes Willy ill," returned Agnes, with a wise shake of the head ; "but for all that he likes it, and eats it whenever he can get it ; nurse is always obliged to look sharp after him."

"She has to use her reason, because he has not yet grown wise enough to use his own," said her uncle, smiling ; "but, Archer, what Aggy says, reminds me

of another thing,—another reason why the sense of taste has been given to us. It serves as a test of character. Do you know what I mean ?”

“Not exactly,” answered Archer, hesitatingly ;
“unless you mean——”

But Alice broke in with :

“I think I do, Mr. Merton. You mean that bad people drink too much, just because they like the taste of beer and gin, and that good people stop when they have had enough.”

“You are not very far from the mark,” replied Mr. Merton ; “only I should put the thing in a different way, and rather say that, by the manner in which we treat this sense of taste, we show whether we are trying to do right or not. It is not only foolish, it is wrong, to eat or drink what we know to be hurtful to us, or too much of what is wholesome. It is wrong to let our taste get the upper hand of us, because we ought to take care of these wonderful bodies which God has given us, and keep them in as good order as we can for his service. This is why it is so wicked to get tipsy ; but you must remember that the Bible condemns ‘gluttonous persons’ as much as drunkards ; and I hope that none of you will forget this whenever you are inclined to eat too much pudding ; for I am quite sure that even your short experience will tell you that when you do, you are never able to learn your lessons well,

and that you are apt to be sullen, and cross, and disagreeable, and altogether unlike what you know you ought to be."

"I suppose that we ought to take care of all our senses, and try to make a good use of them, oughtn't we?" said Alice, thoughtfully.

"Yes; we should *use* them well, and never *abuse* them," replied Mr. Merton.

CHAPTER XVII.

THE TALK WITH GRANDMAMMA.

"So here you are, little Jack Horner!" exclaimed Archer, as he approached his grandmamma's Bath-chair, and found Teddy quietly seated on the foot of it, a basket on his knees, and on the apron a heap of flowers, which he was tastefully packing into it, in masses of scarlet, blue, yellow, violet, and white, interspersed with bits of green, or sprays of leaves which had assumed autumnal tints.

"Grandmamma, why did you let him sit and enjoy you all by himself in this greedy fashion, while we were screaming ourselves hoarse to find him?"

"Teddy and I were having a little quiet chat, which he thought you would disturb soon enough," said grandmamma, laughing; "and you see you have come in time to find a good piece of me left."

"Now what have you been talking about, good-for-nothing?" pursued Archer, catching Teddy's cap from his head, as he spoke, and dodging with it backwards

and forwards, and round the chair, until its owner succeeded in also getting a hold, on which there ensued a race and a struggle, which afforded the old lady great amusement. At length the merry combatants returned panting to her side; and the matter was settled by Archer's tossing the cap into a bush, from which, at the small expense of a few scratches, it was soon rescued by its owner.

It was one of those last precious warm days of autumn; and the old lady was glad to take advantage of it, and sun herself once more in the garden. So there she sat with her knitting in her hand, discussing with the little girls the merits of Teddy's performance, which, however, no one ventured to complete; for though the flowers were grandmamma's weekly gift to a neighbouring invalid lady, who had no garden of her own, yet the right to arrange them was now universally ceded to Teddy, who varied the plan every time, and was becoming quite artistic in his arrangement of them.

The chair was drawn up close by a sunny bank, on which the little girls were already seated, when Archer threw himself down by their side, and again said:

"Now, what has this fellow been talking about, granny? Telling tales of us; hasn't he?"

"No," said the old lady; "though I don't doubt he might; a good many, if he chose. But if you must

know, he was just mourning over the fact that you have none of you more than five senses."

A burst of laughter followed this explanation; but Teddy was quite unmoved. He went on filling his basket until the merriment ceased; and then, raising his eyebrows and shrugging his shoulders, he said:

"Well, and so do you, all of you, you know. Wouldn't you like some more of Aggy's gossips with uncle, every one of you as well as I should?"

"Oh! that's it; is it? I see," said Archer. "Well, I can't deny I should. And now there seems no particular excuse for them. That is a bore, certainly. I wish we had a few more things about us as curious as eyes; for that was the best of all our talks after all; wasn't it?"

Teddy coughed and coloured a little; but he did not answer decidedly; and his grandmamma, seeing that his elder brother was about to continue in his chaffing strain, and thinking that she understood her little knight, as she loved to call him, better at this moment than Archer did, called for an account of their conversations with uncle. There was a good deal of discussion among the young folks as to the order in which these had occurred; and Alice was very much interested in the various small pieces of information which were remembered and rehearsed—prefaced as these generally were with:

"Oh! don't you remember he told us so and so? and then we asked this, and so on."

How delightful it was to talk over the talks and walks of that summer! It seemed as if they never could leave off. And over and over again Alice thought or said, "Oh! I should like to have been with you then!" But there was still one little period, and one or two talks that took place during that period, which were passed over in silence, as if that was a time that must not be talked about. It was: "Oh, that was when you were ill, granny, you know, and we couldn't learn much then."

But though the children did not know it, the old lady had been fully acquainted with the sayings and doings of that time; and there was one conversation of which she thought she would like to take up the thread.

"Well, why won't you tell me what you did when I was ill?" she said, stroking Agnes's curls.

"We didn't do anything, I think," replied the little girl, "except want you to get well again. Mamma was always with you, and there was nobody to give us lessons; so we used to watch nearly all day to see if anybody was coming to tell us how you were."

And as she said this, she turned and gave her grandmamma a great hug.

"But when I got better," said the old lady, warmly returning the embrace, "you went out with uncle again

then ; didn't you? Oh! I know you did, for he told me when he came back what a nice chat you had been having. How is it that you forgot all about this lesson while you remembered all the others?"

"We didn't forget it," answered Archer; "but—."

"But what?" persisted the old lady; and Alice looked curious.

"It was partly about you, grandmamma," said Teddy, abruptly; and looking archly at her, he continued, "I hope you don't mind."

Mrs. Merton smiled and replied that she thought she could trust their uncle not to let them talk evil of her.

"Just as if we were inclined!" returned Teddy, indignantly. "Grandmamma, you know we shouldn't!"

Grandmamma laughed, and went on:

"Well, but you talked of something besides me, didn't you?"

"We talked about something which uncle called 'a sixth sense,'" said Teddy, perceiving that his grandmother knew all about it.

"Yes," said Agnes, "about faith. That's what he told us was like a sixth sense; but I forget why."

"Wasn't it because it is by faith that we get so much knowledge about things that we cannot see, or hear, or feel with our bodily senses?" asked Mrs. Merton.

"Oh, yes," answered Agnes, "that was it."

"You have been calling your five senses gates, haven't you?" continued the old lady; "but you will find that there is a good deal of knowledge which cannot come in through any of them, though they may help towards its entrance; and didn't uncle say that *I* got some of it through what he calls a sixth sense—that is, faith? Come, you needn't be so shy because you have talked about me; for you see I know all about it."

"I'm not shy, if you don't mind," said Agnes, patting her grandmamma's hand, as she stood leaning on the chair; "only—only, I don't seem to know any better now what faith is."

"The best way to know that is to 'have faith' yourself, my child; then you would know, in the best way of all, just as you know what seeing is, because you have eyes."

"But how am I to get it?" asked the child, almost impatiently.

"You must ask God for it," said Alice, softly. "Don't you know that faith is the gift of God, and that He will give it us if we ask Him." Then, colouring a little, she added, "Oh! I beg your pardon, Mrs. Merton—I ought not to have spoken. I quite forgot."

"You couldn't help it, my dear," answered the old lady, kindly; "never mind." Then she turned back to her little grandchild, and said:

"But, Aggy dear, perhaps you don't care for any of that strange thing which we call faith. Some people do not wish for it. Do you think it will do you any good?"

"Oh, yes," cried Teddy and Agnes in a breath, "of course it will;" and Archer added:

"The Bible says that without faith it is impossible to please God."

"And do you all wish to please Him, my children?" grandmamma inquired.

The "Yes" came in different tones from each; but Alice's voice and face alone expressed a full confidence that she was speaking the truth; and Mrs. Merton knew right well that if her own darlings had said all that was in their hearts, they would every one have added, "I think I do, but I am not sure."

Probably they were more afraid of each other than of her; for her loving, sympathizing manner might have encouraged any child to open his heart to her. She looked at each one tenderly and for a moment, but she did not speak. At length she said:

"And why ought we all to wish to please God?"

"Because He made us," said Agnes.

"And takes care of us," added Archer.

"And is so good to us," said Teddy.

"Yes," said the old lady; "we could never get to an end of all the kindness that God has showed us all

our lives, if we were to begin telling of it. He has placed us in a beautiful world, and given us many things freely to enjoy. And besides, as uncle has often showed you, He has given us wonderful bodies, which are so made that when we are in health almost everything that we do gives us pleasure. Yet for all that only a few people do seem to care to please Him; and I heard some young people answer just now as if they were not quite sure whether they did or not. Is not this very extraordinary?"

"Yes, it is," replied Archer, frankly; "but, grand-mamma, it's of no use to tell a story; is it? I *think* I do; but I am not quite sure, and that's the truth."

"And I am very glad that you have spoken it, my dear boy," returned his grandmother, approvingly, while Teddy looked at her in an earnestly expecting way. "Yet you know that this is not as it should be; don't you? You would not answer so doubtingly if I asked whether you wished to please your mamma?"

"No," said Archer, "I shouldn't; but then, you see, I *know* that she is my friend."

"And you don't know whether your heavenly Father is or not!" said his grandmother, in a tone of astonishment.

"God is so good and holy," answered Archer; "He hates wickedness and sin; and I have done plenty of bad things in my life."

"Quite true," returned his grandmamma; "and so your notion is that God is only bearing with you for a little while, and cannot really love you. Ah! you might well think so if He had not given us another proof of his love to us, and one which is far greater than any you have mentioned." She looked from one to another, and at last Teddy said:

"He sent Jesus Christ to die for us, so that, if we believe in Him, we shall not be punished for all the sins we do."

"Yes," returned the old lady, fervently, "that is it. 'God so loved the world'—this world, full of ungrateful sinners—'that He gave his only-begotten Son, that we might not perish, but have everlasting life.' Wouldn't you think that your papa must love some one very dearly if he gave one of you to be punished in that person's stead? And this is just what our heavenly Father did for us. He gave his well-beloved Son to be punished even unto death for our sakes. Think what love that showed! Ought we to doubt his love after that?"

"But then," objected Archer, "it was only to save those who believe,—those who have faith, I mean,—and I don't know whether I have—so of course I don't know whether He loves me."

"Ah! my boy, you are like a great many other people who turn and twist things, and make difficulties for themselves. You must go to work in a different

way if you wish to be able to answer my question to your own satisfaction."

"Dear Mrs. Merton," said Alice, earnestly, "when we were going over that great manufactory, the other day, and tasting so many sweet things, I had one text in my head all the time."

"Had you, my dear ; and what was it ?"

"Taste and see that the Lord is good ; blessed is the man who trusteth in Him," Alice repeated with much feeling.

"That is a nice text, and shows us just the way we ought to go to work. I am very glad that you reminded us of it," replied Mrs. Merton. "Yes ; that is the way out of your difficulty, my children. Do just as you did at Mr. Brown's the other day."

"How ? I don't understand, grandma," said Teddy.

"Why, Teddy !" rejoined Mrs. Merton, "surely *you* know what you did. When you saw the lozenges, and the barley-sugar, and all the other good things, did you take their flavour upon trust ? When one sort was recommended, or another praised for such or such a flavour, did you go away content without ascertaining for yourself, or did you try and see whether you agreed in the praise ?"

"Oh ! I tried—I mean I tasted whenever I could," replied Teddy, smiling.

"But how *are* we to taste in this other case ?" Archer rejoined quickly. "I don't see."

“Not by standing aside and considering with yourself, ‘Is this good news about a Saviour for me?’ or, ‘Do I believe it, or do I not?’” answered his grandmother; “but by tasting, that is, trying for yourself. Think about Jesus and his great love. Go to Him and say, ‘Jesus, Saviour, I come to Thee just as I am; with my cold heart and all my sins, I come, because thy precious blood can wash them all away.’ Then try to trust Him; take all your troubles and difficulties great and small to Him, and remember that He has promised to show you the way in which you should walk. Ask Him every day to give you a tender heart; but never leave off praying, because your heart is hard. And, above all, try to please Him;—try not to be selfish,—I mean, not to please yourself, but always to do what you know He wishes. This is tasting, or trying; and if you do this perseveringly, you will soon feel quite sure that you do *wish* to please God, even though you know that often you must displease Him by your sins and carelessness.”

“I suppose that is what you did when you were young like us, grandmamma?” said Teddy.

“Yes; I knew that I wanted a friend very badly; so when I heard of this best of all friends, I went and asked Him to be mine; and now, after trying Him all these years, I *know* for *certain* that He is better than any brother. Very soon, too, I found out that I wanted Him not only as a friend, but as a Saviour, which I

didn't know at first, as you do. I discovered this by first finding out how wicked my heart was, and how unworthy I was of his love, and by reading my Bible. And it was not until I had taken my sins to Jesus Christ, to be washed away and forgiven, that I really got to begin to know the Lord Jesus, as One whom I could trust and lean on. Even then it was very little that I knew of Him, and very little that I loved, at first; only I *trusted* Him, and ever since I did that, He has been teaching me; so that, though still I know very little, yet it is much more than I did at the beginning. Faith has been the door by which this knowledge came in, you see; and God gave me this faith,—I mean this trust, this power 'to lean on Jesus. I did not think much whether I had it at first, any more than you think about your eyes when you want to see anything; I just thought about my Saviour, and often felt as if I were straining the eyes of my mind in trying to see Him. You must try to look too, and to hear his voice, and to feel after Him; and in this way you will learn too. Alice knows what I mean, I think, and will tell you that it is all quite true, if you ask her; isn't it, Alice?"

"Yes," said the young girl, timidly, "only I don't think they will believe me, unless they taste and see. That was what *my* uncle told me to do, when I was blind, and used to fret about it. But once, a long time ago, I remember, I told him that sometimes I couldn't

feel anything about God,—only about myself. It was then that he gave me my missionary-box, and told me about the poor heathen ; and then he said, that when we seemed as if we couldn't feel about ourselves, we should try to think of others that are worse off, because that would do us good. And my box has been such a great friend to me ! When I took it in my hand and thought what the money in it was for, it seemed as if I could see the countries a long way off, and the people praying to their ugly idols ; and then I used to feel so sorry for them, and wish so much that they knew about God and heaven, and then, soon, I didn't mind so much about being blind ; and the horrid cold feelings went away ; and beautiful thoughts used to come about the happy time that will be, some day, when Jesus will fetch us all to live with Him, and nobody in his kingdom will be poor, or blind, or unhappy any more."

"Yes ; this is the way we must all learn, my children," said the grandmother ; "not exactly in the same way, but every one by little and little, by pains and patience, just as you learn your lessons every day : and as you go on, so you will find you know a little and a little more continually. You must not expect to have your hearts filled with love to God all at once ; only be content to begin at the very beginning, like little babies, and some day you shall 'know, even as you are known.'"

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